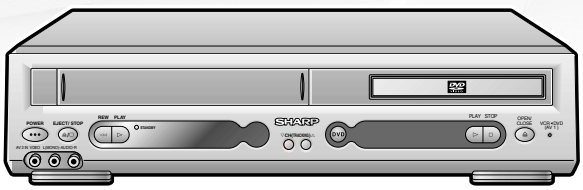
SHARP®

VCR/DVD COMBINATION
MODEL
DV-NC55U

OPERATION MANUAL



Please read this Operation Manual carefully before using your Unit.

Instrucciones importantes de seguridad y guía rápida de operación en español →Página 105

! IMPORTANT / *IMPORTANTE*

For VCR Function

EZ SET UP ***(AUTO CHANNEL /CLOCK SET UP)***

EZ SET UP ***(PROGRAMACIÓN AUTOMÁTICA DE CANAL/PUESTA EN HORA DEL RELOJ)***

❶ Connect Antenna/Cable to Unit first. *En primer lugar conecte la antena/el cable a la unidad.*	❷ Then, plug into AC Power Outlet. *A continuación, enchúfelos al tomacorriente de CA.*	❸ Do not press the **POWER** button until completion of EZ Set Up. *No pulse el botón de* ***ALIMENTACIÓN (POWER)*** *hasta haber terminado la EZ SET UP.*	❹ EZ SET UP complete. *EZ SET UP completo.*

Detail: Please see page 26
Detalle: véase la página 26

VHS HQ HIGH QUALITY

DVD VIDEO

COMPACT disc DIGITAL AUDIO

DOLBY DIGITAL

dts DIGITAL OUT

QSOUND QSURROUND™

energy

For future reference, record the model and serial number (located on the rear of the Unit) in the space provided.

Model No.: _____

Serial No.: _____

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user of uninsulated voltage within the unit that can cause dangerous electric shocks.

This symbol alerts the user that there are important operating and maintenance instructions in the literature accompanying this unit.

"WARNING—FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment."

DECLARATION OF CONFORMITY

SHARP VCR/DVD COMBINATION, MODEL DV-NC55U.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RESPONSIBLE PARTY:

SHARP ELECTRONICS CORPORATION
Sharp Plaza, Mahwah, New Jersey 07430-2135
TEL: 1-800-BE-SHARP

INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

CAUTION:

THIS UNIT IS A CLASS 1 LASER PRODUCT.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

AS THE LASER BEAM USED IN THIS UNIT IS HARMFUL TO THE EYES, DO NOT ATTEMPT TO DISASSEMBLE THE CABINET.
REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

As an ENERGY STAR® Partner, SHARP has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. ENERGY STAR is a U.S. registered mark.

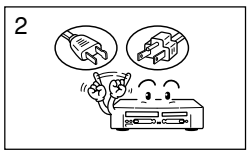
IMPORTANT SAFEGUARDS AND PRECAUTIONS

Caution

READ THE SAFETY AND OPERATING INSTRUCTIONS before operating this Unit and retain the instructions for later use.
FOLLOW INSTRUCTIONS AND HEED ALL WARNINGS on this Unit and in this manual.

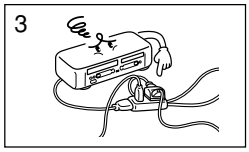
Installation

1. Operate only from a power source indicated on this Unit or in this manual. If you are unsure of your power supply, ask your local power company.



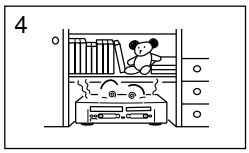
2. As a safety feature, this Unit is equipped with either a 2-wire polarized plug (one plug blade bigger than the other) or a 3-wire grounded plug (a third pin for grounding). The 2-wire polarized plug will fit only one way into the power outlet. The 3-wire grounded plug will fit only into a grounding-type power outlet.

   If the plug does not fit, ask your electrician to replace your obsolete outlet. Do not modify the plug. To do so will void the safety feature.



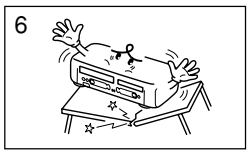
3. Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful at plug-ins, convenience receptacles, or cord exit points from the Unit. Frayed power cords or damaged plugs are hazardous. Have them replaced by a qualified service technician.

   Overloaded wall outlets and extension cords may cause fire or electrical shock hazards.



4. Do not cover or block ventilation holes in the Unit cabinet. Doing so may damage the Unit, video cassette or disc.

   Do not place this Unit on a soft surface which could block ventilation holes on the bottom. Avoid enclosed installations such as bookshelves or racks unless ventilation is adequate.



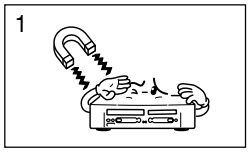
5. Avoid excessive humidity, sudden temperature changes, or temperature extremes. Dew may form inside this Unit, video cassette or disc.

6. To avoid costly damage or injury, place this Unit flat on a solid, stable surface free from vibrations; do not place any heavy objects on top of it. Use only a cart, stand, or table recommended by the manufacturer; follow all instructions regarding their use exactly.

7. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

Operation/Cleaning

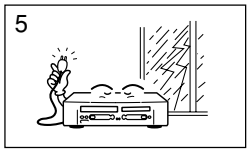
1. Keep this Unit away from strong magnetic objects.



2. Keep this Unit away from wet locations such as bathtubs, sinks, laundries, wet basements, and swimming pools.

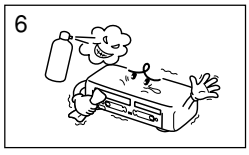
3. Use only accessories recommended by the manufacturer to avoid fire, shock or other hazards.

4. If this Unit has been exposed to rain, moisture or strong impact, unplug it and have it inspected by a qualified service technician before resuming use.



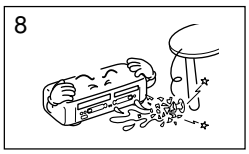
5. For added protection of this Unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cables. This will prevent damage to the product due to lightning and power-line surges.

6. Unplug this Unit before cleaning. Use a damp cloth for cleaning. Do not use cleaning fluids or aerosols which could enter the unit and cause damage, fire, or electrical shock. These substances may also spoil the finish of this Unit.



IMPORTANT SAFEGUARDS AND PRECAUTIONS

7. Never open, remove covers or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause serious damage to this Unit.

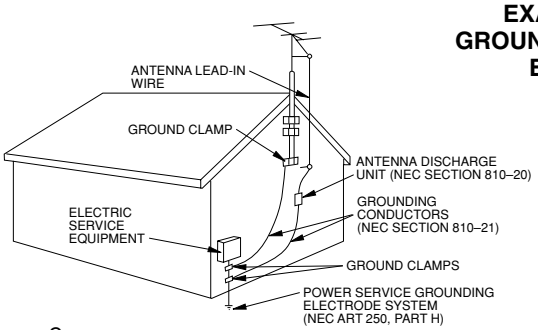


8. Keep liquids and foreign objects away from this Unit. Never operate this Unit if any liquid or foreign object has entered it. Short circuits could result in and possibly cause fire or shock hazards. Unplug this Unit immediately and have it inspected by a qualified service technician.

OUTDOOR ANTENNA GROUNDING AND POWER LINES

1. If an outside antenna or cable system is connected to the Unit, be sure the antenna or cable system is grounded, thus providing some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA No.70, provides information regarding proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See diagram below.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE


ANTENNA LEAD-IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810–20)
GROUNDING CONDUCTORS (NEC SECTION 810–21)
ELECTRIC SERVICE EQUIPMENT
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

NEC—NATIONAL ELECTRICAL CODE

2. An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come into contact with power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from coming into contact with power lines or circuits; contact with them might be fatal.

Service

1. Do not attempt to service this Unit yourself. Instead, unplug it and contact a qualified service technician. (See **CONSUMER LIMITED WARRANTY** at the end of this manual.)

2. Be sure the service technician uses authorized replacement parts or their equivalents. Unauthorized parts may cause fire, electrical shock, or other hazards.

3. Following any service or repair, be sure the service technician performs safety checks to certify that this Unit is in safe operating order.

Copy Protection

This Unit supports Macrovision copy protection.
On DVD discs that include a copy protection code, if the contents of the DVD disc are copied using a VCR, the copy protection code prevents the videotape copy from playing normally.

Apparatus Claims of U.S. Patent Nos. 4,631,603, 4,577,216, 4,819,098 and 4,907,093 licensed for limited viewing uses only.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Recommended Measures for Optimum Picture Excellence

This Unit is a precision device constructed using extremely accurate technology.
• If the head or the tape drive components become dirty or worn out, the image on the tape will be distorted.
• The disc cannot be played if the disc drive component is worn out or if the internal pick up lens is dirty.
To obtain optimum picture quality, the Unit should be checked (cleaning and replacement of some parts) every 1,000 hours. Note that this period varies depending on the environment (temperature, humidity, dust, etc.) in which the Unit is used. Contact your authorized Sharp supplier for details.

Warning of Dew Formation

There are cases when dew formation can occur.
Using a Unit in which dew has formed may damage or coil the tape, or signals from the disc might not be read. Remove the tape or disc and leaves the Unit with the power ON for about 2 hours so that it warms up and removes the dew. Operation should be back to normal then.
Dew may form on the drum, heads, pickup lens, tape, or disc in the following conditions:
• Immediately after a heater has been turned on.
• In a steamy or very humid room.
• When the Unit is suddenly moved from a cold environment to a warm one.
Use the Unit in a place where the room temperature is between 5°C to 35°C (41°F to 95°F). Dew can easily form inside the Unit in cold areas.

Others

1. It is the intent of Sharp that this product be used in full compliance with the copyright laws of the United States and that prior permission be obtained from copyright owners whenever necessary.
2. Normally, the Unit does not require head cleaning. However, the heads may become clogged when an old or damaged tape is used. If the playback picture becomes blurred, the heads may need cleaning. Head cleaning should be performed by a qualified technician. Contact the nearest Sharp Factory Service Center or Authorized Service Station. Do not use a cleaning tape unless it is new and of high quality. Excessive use of cleaning tapes may also damage the heads.

WARNING—Keep the Unit away from electrical and magnetic appliances which could impair performance. Be sure to position the Unit away from your TV or video monitor by at least 8".

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Types of Discs that Can Be Played on This Unit

This Unit can play back discs bearing any of the following marks:

DVD VIDEO	DVD [8cm(3") disc/12cm(5") disc]	See NOTE ➤ 1 See NOTE ➤ 2 on the next page See NOTE ➤ 3 on the next page See NOTE ➤ 4 on the next page
COMPACT disc DIGITAL AUDIO	Audio CDs [8cm(3") disc/12cm(5") disc]	
	CD-R/CD-RW [8cm(3") disc/12cm(5") disc]	• Discs recorded in MP3 file format or Audio format.

Other CDs
1) On CD-G and CD-EXTRA discs, only the sound can be played (no images).
2) Video CD, photo CD, DVD-ROM, DVD-R, DVD-RW, DVD-Audio, SACD and CD-ROM discs cannot be used.
3) Discs with unusual shapes (heart-shaped or hexagonal discs) cannot be used. The use of such discs will cause a fault.
   • This Unit will reject an incompatible disc, therefore the disc type should be checked.

NOTE ➤ 1

• DVD video players and discs have region numbers which dictate the regions in which a disc can be played. If the region number on the disc does not match the region number in this Unit, you will not be able to play the disc.

The region number for this Unit is *1*.

Sample disc display:

Disc playable in all regions

The list below shows the countries covered by region number **1**.

Common Names	Names of Nations and Areas
Canada	Canada
United States	United States of America
American Samoa	*American Samoa
Bermuda	*Bermuda
Johnston Island	*Johnston Island
Midway Islands	*Midway Islands
Puerto Rico	*Puerto Rico
St. Pierre and Miquelon	*St. Pierre and Miquelon
United States Virgin	*United States Virgin
Wake Island	*Wake Island

*represents Area Name

NOTE ➤ 2

- The specific playback functionality for some DVD discs is determined by the disc manufacturer. Because this Unit plays disc data in accordance with the disc manufacturer's guidelines, some functions may not be available on some discs. Be sure to read the instructions provided with the disc.
  The "Prohibited" indicator displayed on the TV screen during this Unit operation indicates that such manufacturer-imposed restrictions apply.

NOTE ➤ 3

- The audio on a DVD disc recorded in MPEG Version 2.0 format cannot be played back (images only).

NOTE ➤ 4

- Since this Unit is not equipped with a closed caption function, even if you play a disc with the closed caption function the subtitles will not be shown (DVD discs with subtitles can be displayed on screen).

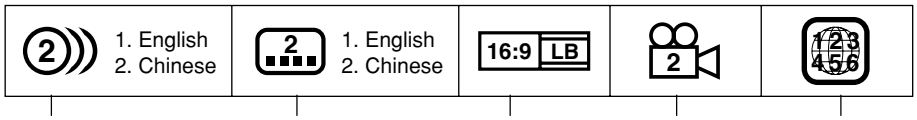
Discs that Cannot be Played

1. You cannot play illegally produced discs.
2. You cannot play scratched discs.
3. You cannot play discs that are dusty, soiled or marked with fingerprints.

- If the playing surface of a disc is soiled or scratched, the Unit may decide that the disc is incompatible and eject the disc tray, or it may fail to play the disc correctly.
  (Refer to the Instructions on page 10 and clean discs before playing them.)
  A soiled or scratched disc may disrupt the image (appearing as blocks on the screen). When this happens, the Unit automatically restores the correct image after 2 or 3 seconds.

Icons Used on DVD Discs

Sample Icons



Number of audio tracks

Type of subtitles recorded

Screen aspect ratio recorded

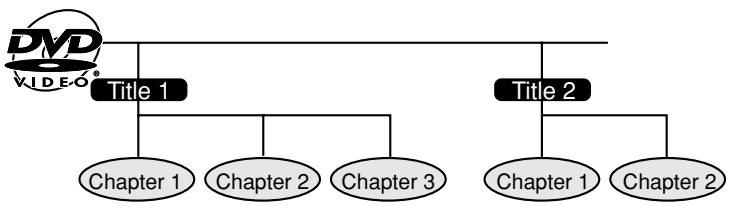
Disc with multiple camera angles

Region code indicator (see page 8)

Title, chapter and tracks

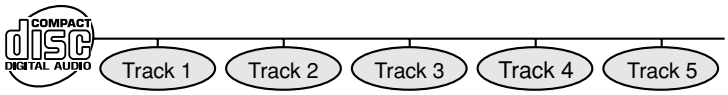
- DVDs are divided into "titles" and "chapters". If the disc has more than one movie on it, each movie would be a separate "title". "chapters", on the other hand, are subdivisions of titles.

Example: DVD



- Audio CDs are divided into "tracks". You can think of a "track" as one tune on an audio CD.

Example: Audio CD



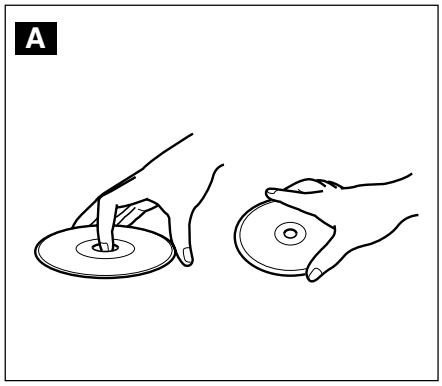
NOTE ➤

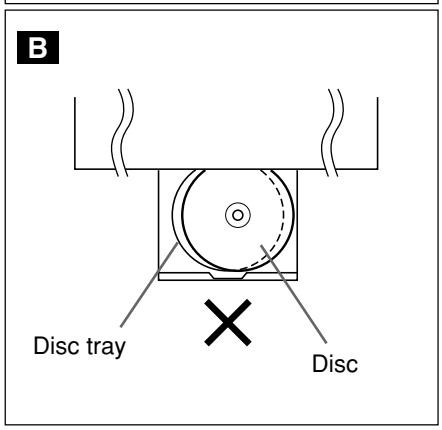
- Numbers identify each title, chapter, and track on a disc. Most discs have these numbers recorded on them, but some do not.

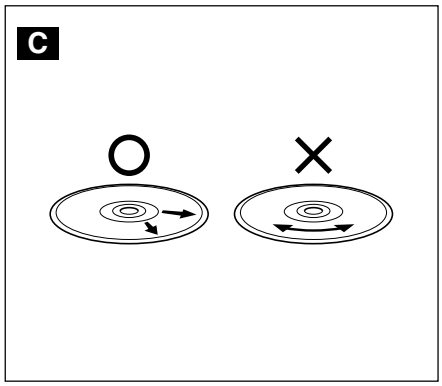
Disc Handling and Maintenance

Handling Precautions

- Hold the disc by the edges so the surface will not be soiled with fingerprints. (A)
  Fingerprints, dirt and scratches can cause skipping and distortion.
- Do not write on the label side with a ball-point pen or other writing utensils.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Be careful not to drop or bend the disc.
- Do not install more than 1 disc on the disc tray.
- Do not try to close the disc tray when the disc is not installed properly. (B)
- Be sure to store the disc in its exclusive case when not in use. Then store upright.
- Do not stick paper or adhesive labels to the disc.







If the Surface is Soiled (C)

Wipe gently with a soft, damp (water only) cloth.
When wiping discs, always move the cloth from the center hole toward the outer edge.
(If you wipe the discs using a circular motion, circular scratches are likely to occur, which will cause noise.)

If the playing surface of a disc is soiled or scratched, the Unit may decide that the disc is incompatible and eject the disc tray, or it may fail to play the disc correctly. Wipe any soiling off the playing surface with a soft cloth.

If the Disc is Brought from a Cold to a Warm Environment, Dew May Form on the Disc

Wipe the dew off with a soft, dry, lint-free cloth before using the disc.

Improper Disc Storage

You can damage discs if you store them in the following places:
- Areas exposed to direct sunlight
- Humid or dusty areas
- Areas directly exposed to a heat outlet or heating appliance

Maintenance

- Be sure to turn the Unit off and disconnect the AC power cord before maintaining the Unit.
- Wipe this Unit with a dry soft cloth.
  If the surfaces are extremely dirty, wipe clean with a cloth which has been dipped in a weak soap-and-water solution and wrung out thoroughly and then wipe again with a dry cloth.
- Never use alcohol, benzine, thinner, cleaning fluid or other chemicals. And do not use compressed air to remove dust.

Features

■ Common Features

- A DVD, CD player and VCR all in one.
- Simultaneous VCR recording and DVD playback.

■ VCR

- VHS Hi-Fi Stereo Sound/Double-Azimuth 4-Heads
- Built-in MTS (Multi-channel TV Sound) Decoder
- 400 Times Rewind Speed to Fast Forward and Rewind
- EZ Set Up (Auto Channel/Clock Set Up)
- S-VHS Quasi Playback
- 19μ Clear Picture System (in EP mode)
- Simple Recording Timer
- Sharp Super Picture
- Exact Rec/Tape Remaining

■ DVD

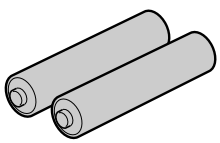
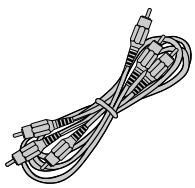
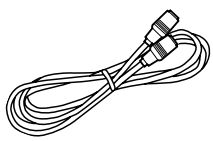
- Plays DVD, CD (Digital Audio) discs as well as CD-R/CD-RW discs recorded in MP3 file format
- Virtual Dolby Surround (QSURROUND*1) provides high-quality surround sound
- Digital Gamma correction and Digital Super Picture functions
- Dolby Digital*2/DTS*3 digital out capability
- High-quality digital images
- High-quality digital sound

*1 QSURROUND™ is a trademark of QSound Labs, Inc.
*2 Manufactured under license from Dolby Laboratories. “Dolby”, “Pro Logic” and the double-D symbol are trademarks of Dolby Laboratories.
*3 “DTS” and “DTS Digital Surround” are trademarks of Digital Theater Systems, Inc.

Disc Features and this Operation Manual

- The types of functions and operations that can be used for a particular disc vary depending on the features of that disc. In some cases, these functions and operations may differ from the descriptions given in this Operation Manual. In this event, follow the instructions given on the screen. This Operation Manual only covers basic disc operations.
- **For some operations, the or indicator may appear on the TV screen. This indicates that the operation described in this Operation Manual is not permitted for the current disc.**

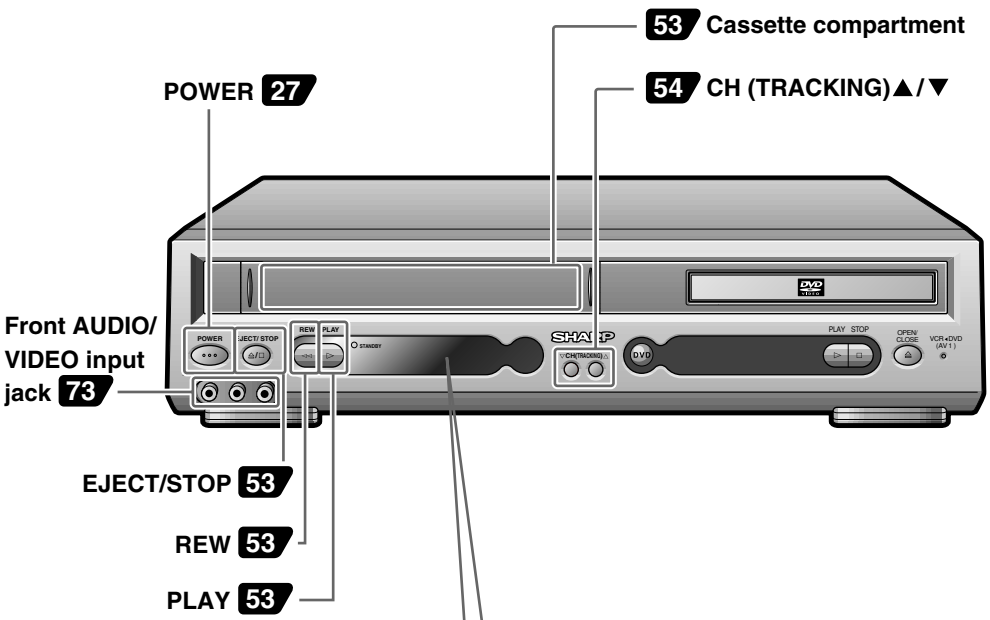
Accessories

Remote control unit (RRMCG1293AJSA)	 Two batteries (R6 UM/SUM-3 or AA) for the remote control unit	 VIDEO/AUDIO cable (QCNW-8549AJZZ)	 Round coaxial cable (75 Ohm, 1 m [3-1/4 ft.]) (QCNW-8387AJZZ)

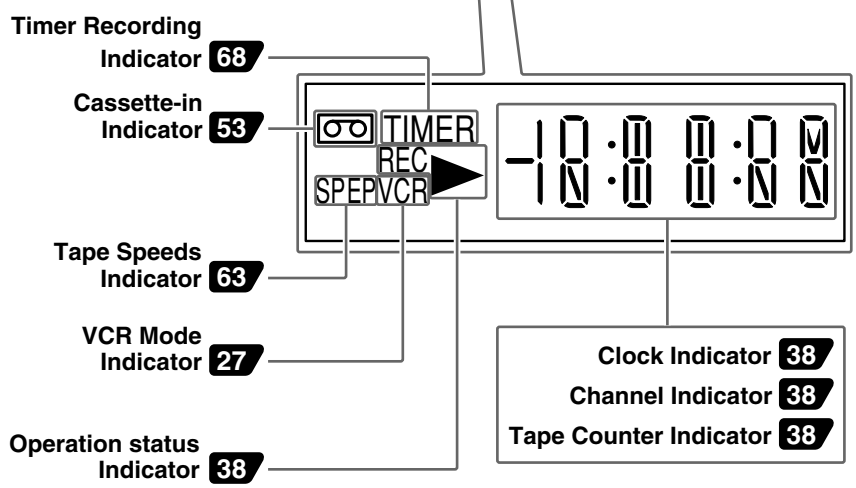
Major Components

VCR Main Unit (Front)

Numbers in ■ refer to the main pages
in this Operation Manual where the topic is explained.

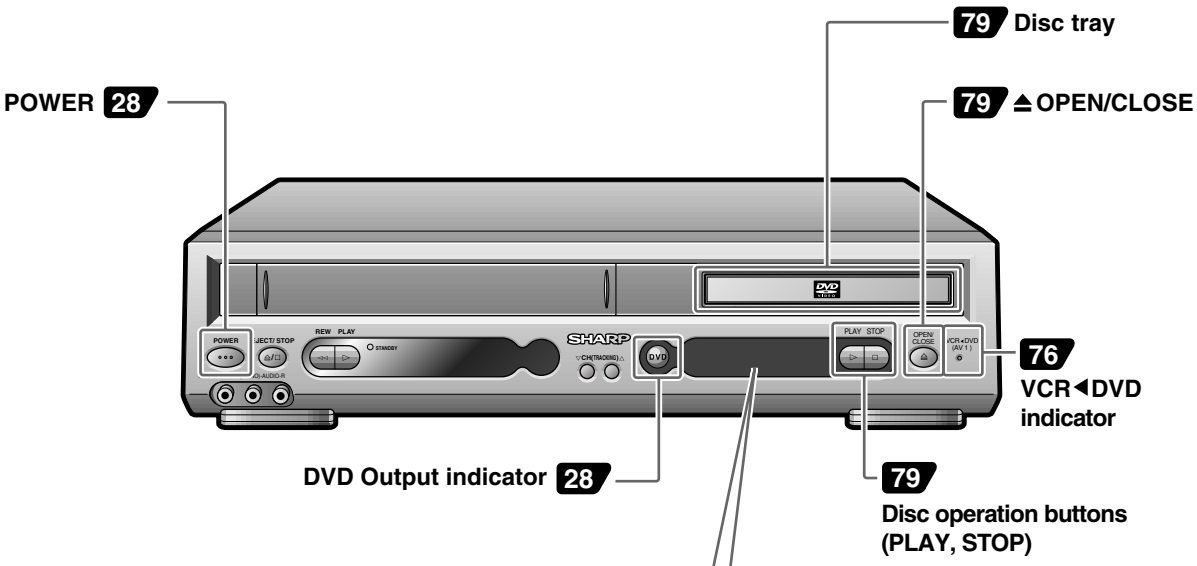


VCR Front Panel Display

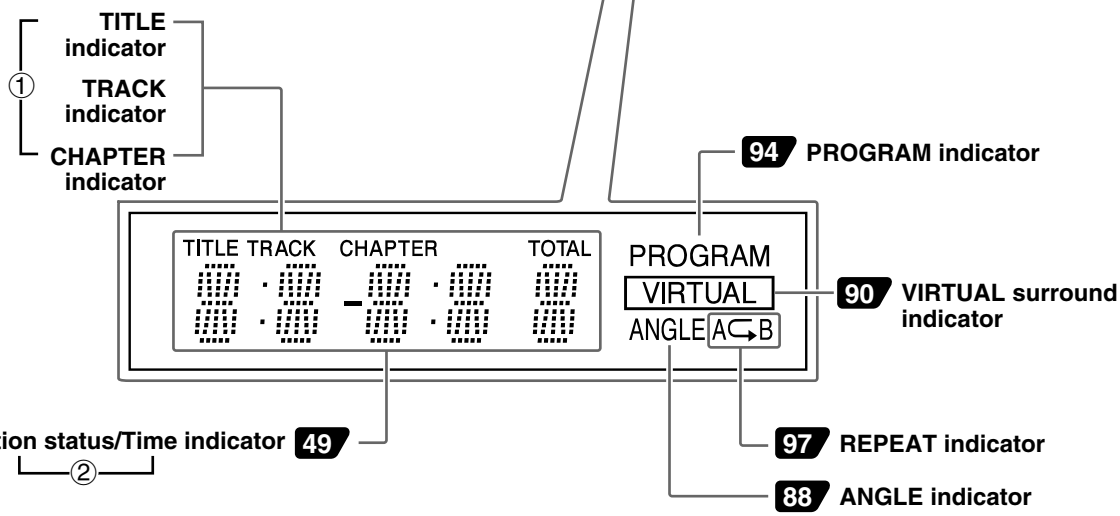


DVD Main Unit (Front)

Numbers in ▬ refer to the main pages in this Operation Manual where the topic is explained.



DVD Front Panel Display

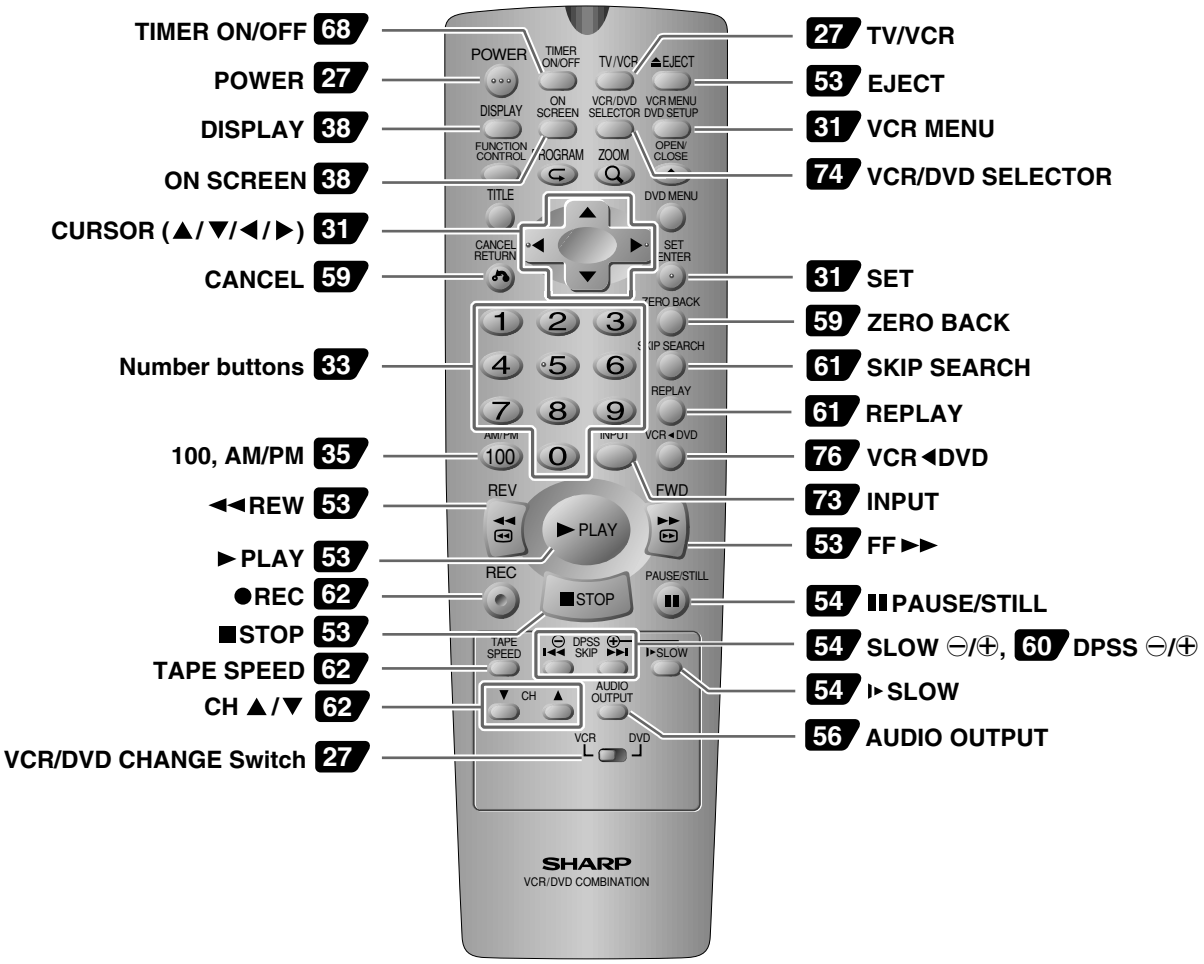


You can toggle between ① and ② by pressing the remote control unit's **DISPLAY** button (page 49).

Remote Control Unit (VCR Operation Buttons)

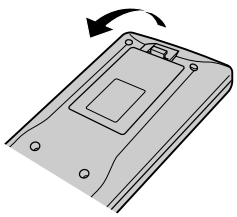
- The explanations on this page use the **VCR/DVD CHANGE Switch** in the **VCR** position.

Numbers in refer to the main pages in this Operation Manual where the topic is explained.

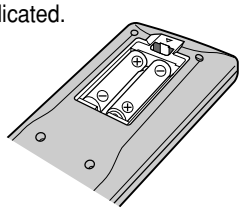


Loading the Batteries

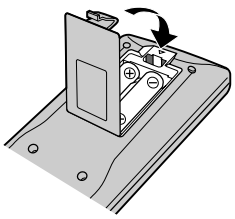
1 Open the battery cover by pulling the lid in the direction of the arrow.



2 Load the batteries.
Load the two batteries (R6 UM/SUM-3 or AA) supplied with the remote control unit so that the battery poles ⊕ and ⊖ are positioned as indicated.



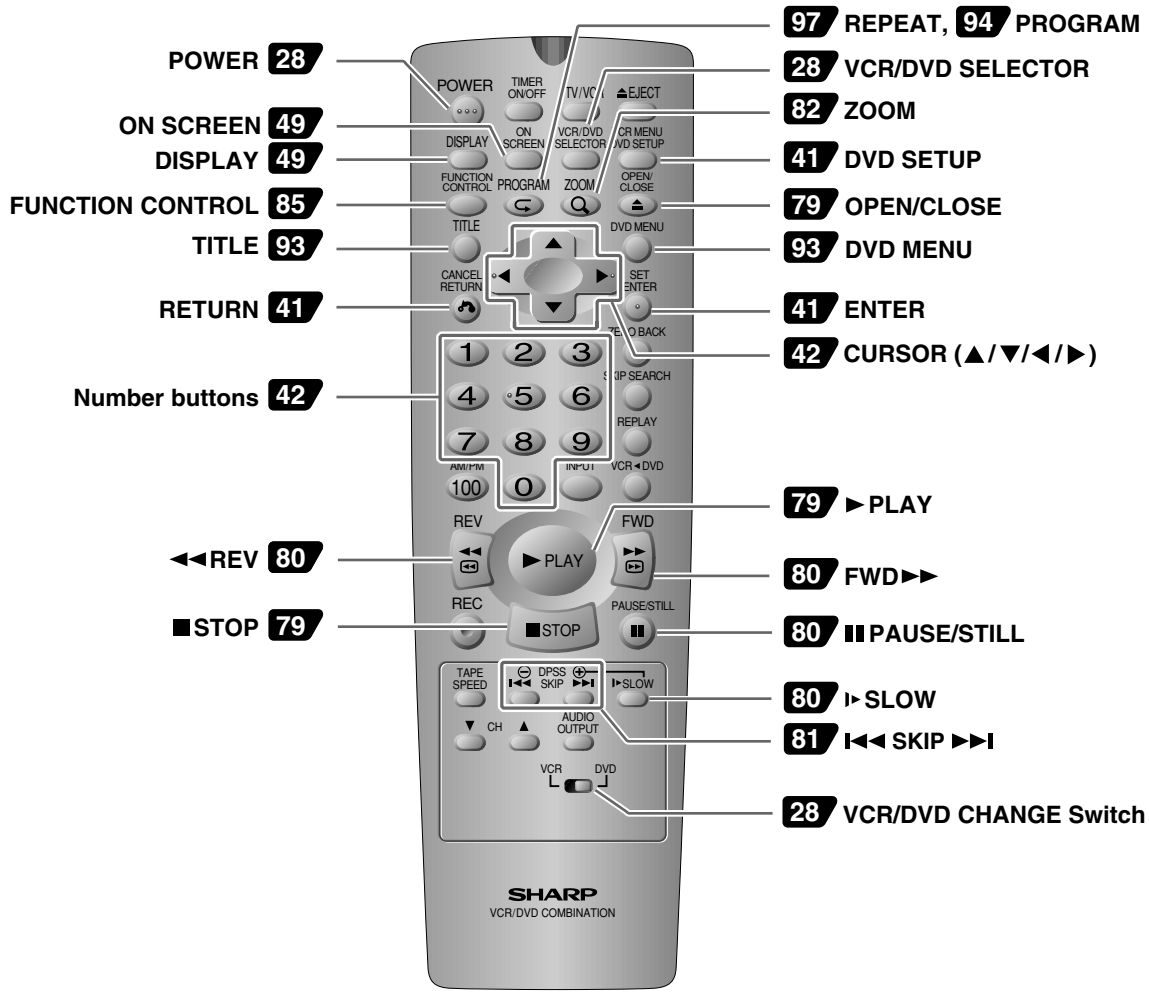
3 Close the battery cover by lowering the lid in the direction of the arrow.



Remote Control Unit (DVD Operation Buttons)

- The explanations on this page use the **VCR/DVD CHANGE Switch** in the **DVD** position.

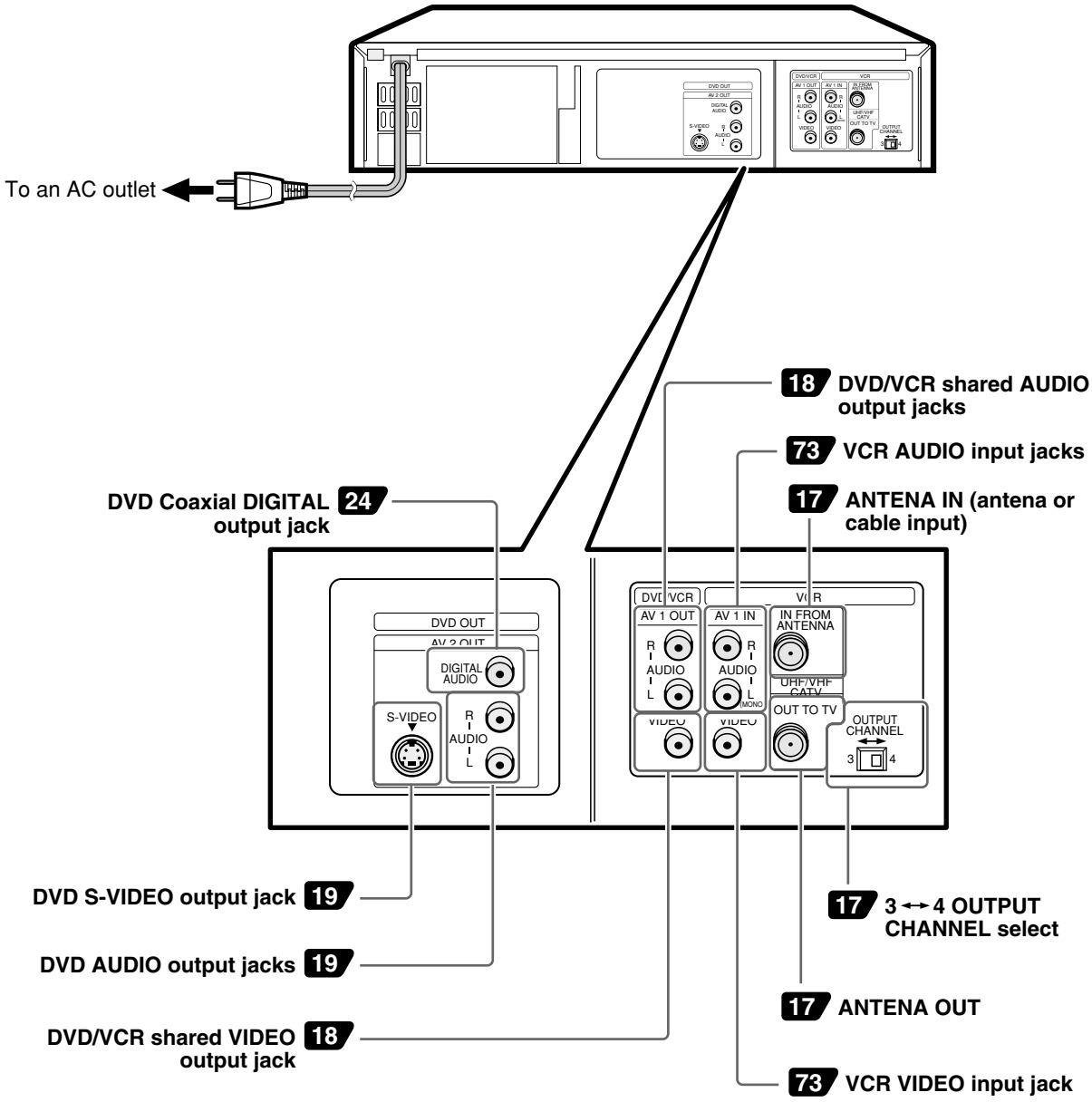
Numbers in refer to the main pages in this Operation Manual where the topic is explained.



NOTE

- Do not subject the remote control unit to shock, water or excessive humidity.
- The remote control unit may not function if the Unit sensor is in direct sunlight or any other strong light.
- Incorrect use of batteries may cause them to leak or burst. Read the battery warnings and use the batteries properly.
- Do not mix old and new batteries, or mix brands in use.
- Remove the batteries if you do not use the remote control unit for an extended period of time.

Main Unit (Rear)



Basic Connection

Caution:

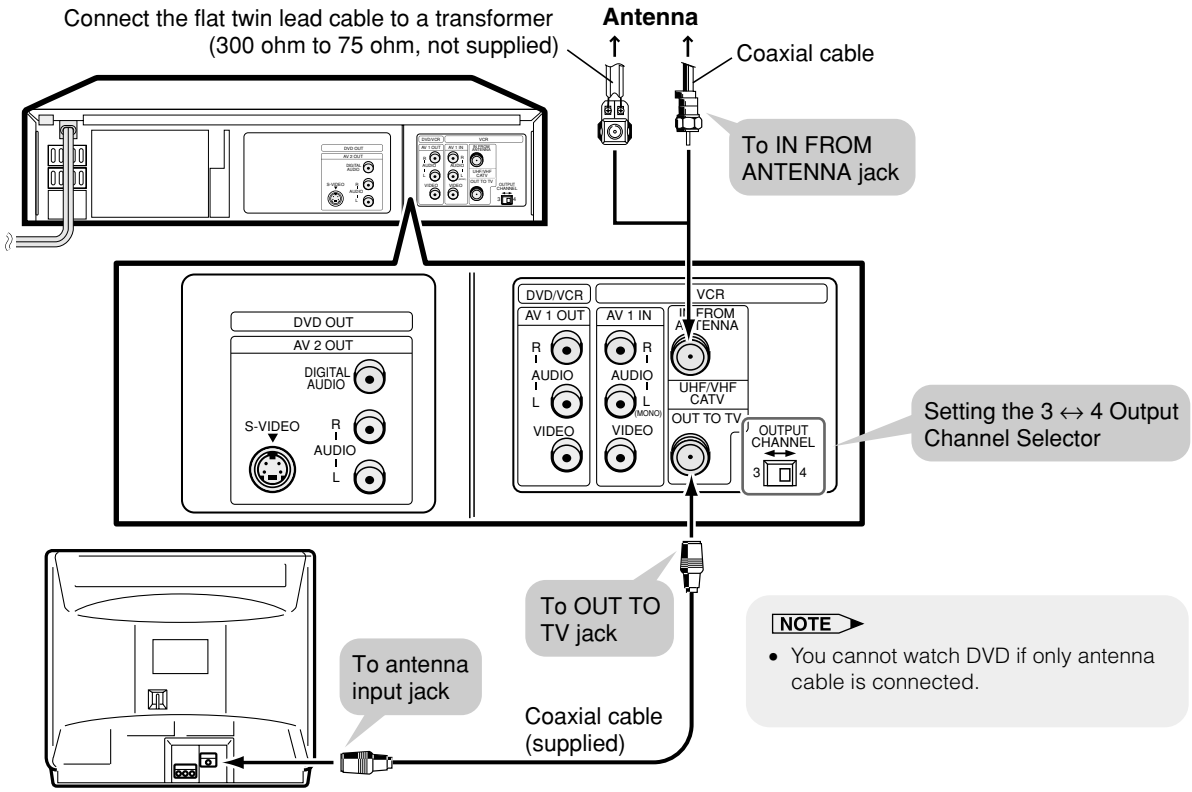
- Be sure to turn off the Unit and equipment to be connected before connecting.
- Read through the operation manual for the equipment to be connected.
- Be sure that the colors of the jacks and plugs match up when connecting the cable.
- Be sure to keep the Unit connection cables separate from the TV antenna cable when you install the Unit, because it may cause electrical interference when you are watching television programs.

Connecting a TV

The connection method differs depending on the type of TV.
If you have cable TV (CATV), see "Cable TV Connections" on page 20.

RF Connection (for connection to a TV without AV jacks)

1 Disconnect the TV antenna from the TV.
2 Connect the TV antenna cable to the IN FROM ANTENNA jack on the rear of the Unit.
3 Connect the OUT TO TV jack on the rear of the Unit to the antenna jack on the TV using a coaxial cable. Select the TV channel 3 or 4 corresponding to the 3 ↔ 4 output channel selector of the Unit. (See "Setting the 3 ↔ 4 Output Channel Selector" below.)



NOTE

- You cannot watch DVD if only antenna cable is connected.

Setting the 3 ↔4 Output Channel Selector

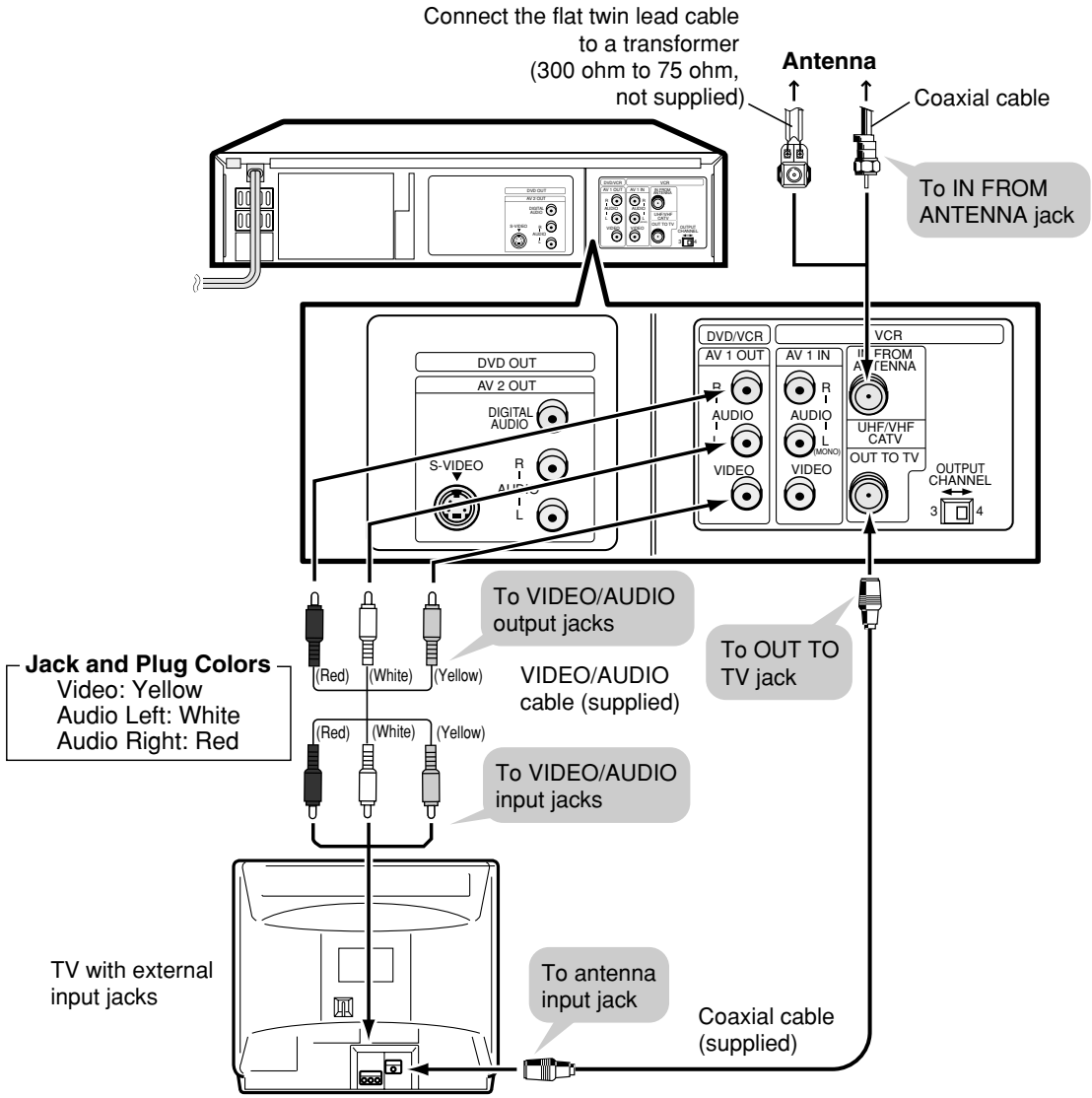
The 3 ↔ 4 OUTPUT CHANNEL selector changes the VCR output to standard TV broadcasting signals. Both your TV and Unit must be set to the same channel (i.e. TV on channel 3 and Unit's OUTPUT CHANNEL selector on 3). Your Unit is set to channel 3 at the factory, so your TV should be tuned to channel 3 as well. If channel 3 is an active broadcast channel in your area, set the Unit's 3 ↔ 4 OUTPUT CHANNEL selector to 4 and tune your TV to channel 4.

After the Connection

Plug in the power cord of the TV. Then go to **EZ Set Up** (See page 26).

AV Connection (for connection to a TV with AV jacks)

1 Disconnect the TV antenna from the TV.
2 Connect the antenna, Unit, and TV using the Audio/Video cable and coaxial cable (supplied) as shown.

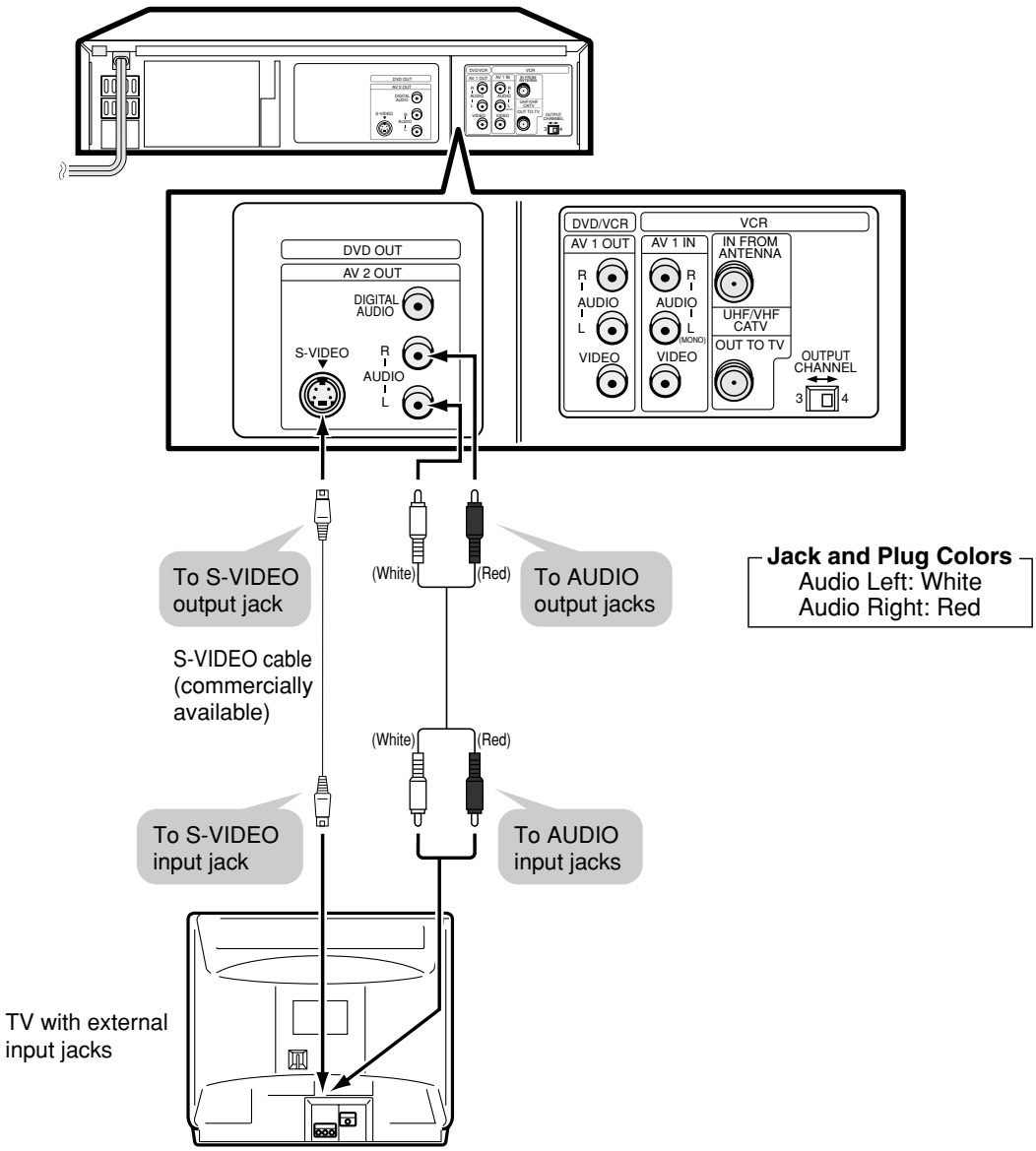


After the Connection
Plug in the power cord of the TV. Then go to **EZ Set Up** (See page 26).

Watching clearer DVD images

In order to view clearer DVD images, it is recommended that you use a commercially available S-video cable when connecting your TV to DVD OUT.

Videos cannot be viewed when connected to DVD OUT. In order to watch videos, make sure to connect your TV to the DVD/VCR jack. (See page 18.)



NOTE

- Make sure to connect the TV to the unit. When watching TV via a VCR, the image can be distorted if the copy-protect function is active.
- You cannot watch the VCR if you are connected to the DVD output jack.

Cable TV Connections

Your Unit is capable of receiving the following non-scrambled channels.
- Scrambled channels can be received with the cable box supplied by your cable TV company.

Connections for the CATV system

1 Set the 3 ↔ 4 OUTPUT CHANNEL selector on the rear of the Unit to 3 or 4. (See page 17)

2 Check your TV/CATV system referring to the following steps.

Is your TV cable compatible with the VCR?

YES

Does your CATV system have some or all channels scrambled?

YES

Go to **D** on page 23

NO

Go to **A** below

NO

Does your CATV system have some or all channels scrambled?

YES

Go to **D** on page 23

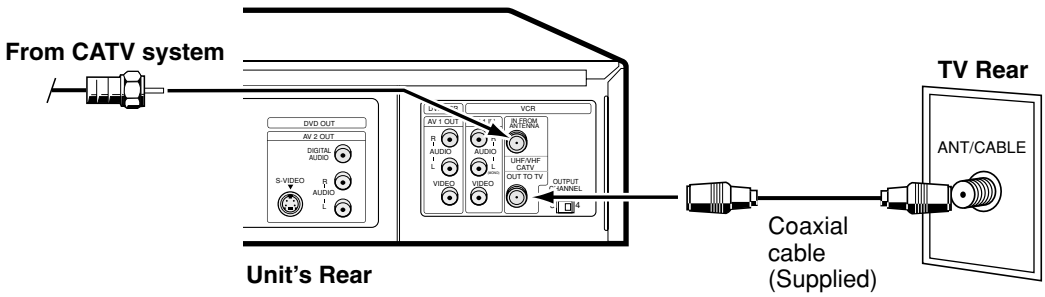
NO

Choose the type below.

- Basic connection (only for descrambled CATV signals.) → Go to **B** - 1 or **B** - 2 on page 21
- To watch a CATV program while recording a TV program by using the A/B switch. → Go to **C** on page 22

A Connection without a cable box

- Connect as shown below.



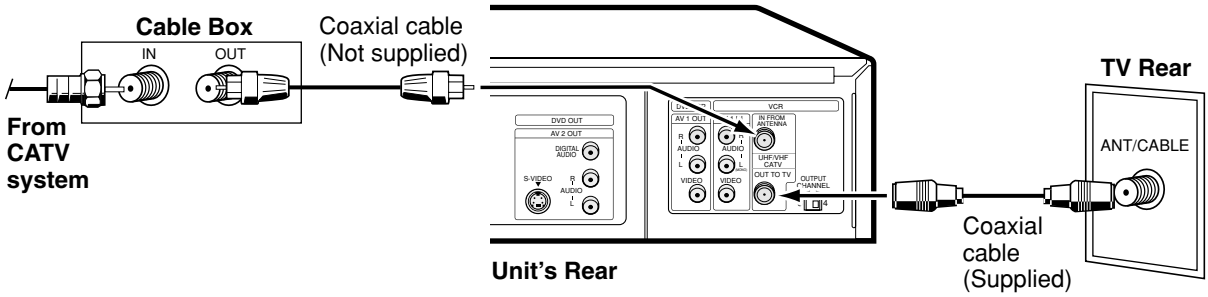
After the Connection

Plug in the power cord of the TV. Then go to **EZ Set Up** (See page 26).

B Connection with cable box

1

- Connect as shown below. With this connection, it is possible to record descrambled CATV signals.



NOTE

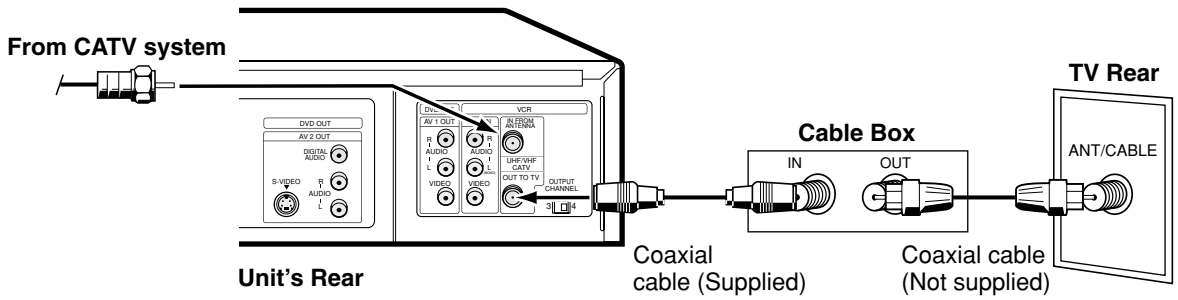
- If the cable box is turned off, it will not output any signals, thus making it impossible to record or view a program from the CATV system.
- In the case of the above connections, it is not possible to change channels using the Unit's remote control. Only the cable box can be used to change channels.
- Only one channel at a time can be programmed for recording programs with the timer. It is not possible to watch a TV program different from the one being recorded.
- Depending on which terminals the TV has, a separate combiner (mixer) or separator (splitter) may be necessary.

After the Connection

Plug in the power cord of the TV. Then go to **EZ Set Up** (See page 26).

2

- Connect as shown below. With this connection, it is not possible to record CATV programs which have been scrambled, but is possible to record one channel and watch the other one.



NOTE

- With the above connection, **CH ▲/▼** of the Unit or the number buttons on the remote control can be used to select channels.
- Depending on which jacks the TV has, a combiner (mixer) or separator (splitter) may be necessary.
- To record one channel and watch another, the Unit must be set to the TV mode.

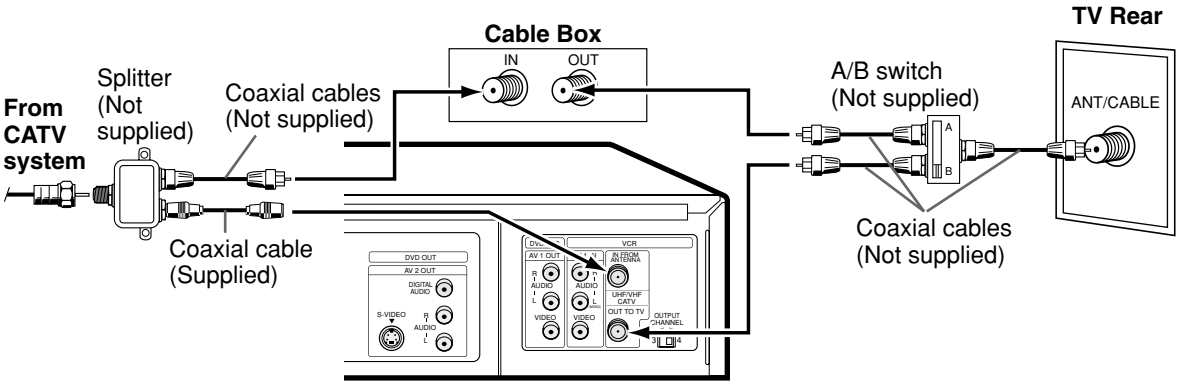
After the Connection

Plug in the power cord of the TV. Then go to **EZ Set Up** (See page 26).

C Connection with cable box, A/B switch and splitter

By using an A/B switch or splitter, it is possible to switch between the cable box and the Unit output.
For example, while recording a TV program with the Unit, it is possible to watch a CATV program (including descrambled programs) using the A/B switch.

- Connect as shown below.



Unit's Rear

Using the A/B Switch

1 Set the A/B switch to the "A" position in the following situations.

- To watch a cable TV program while recording another program.
- To watch a scrambled cable TV program.
- To watch a cable TV program when the Unit is turned off.

NOTE

- Use the cable box to change channels.
- If you turn off the cable box, you cannot watch a CATV program.

2 Set the A/B switch to the "B" position in the following situations.

- To play back a cassette on the Unit.
- To watch a program which is being recorded with the Unit tuner.
- To watch a program using the Unit tuner.

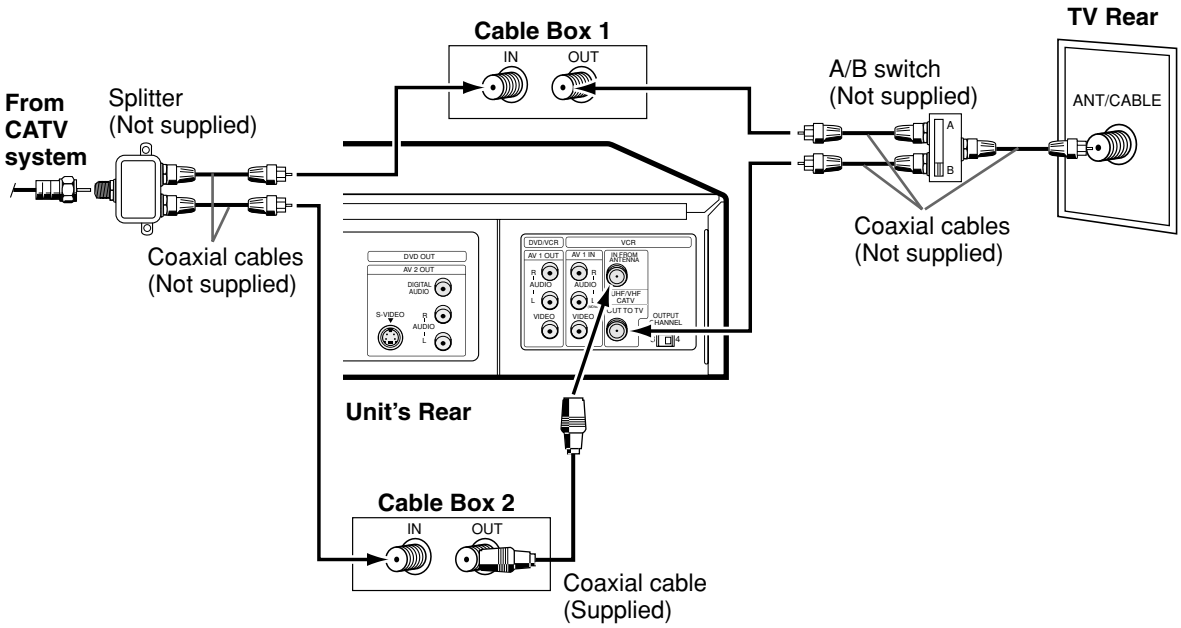
After the Connection

Plug in the power cord of the TV. Then go to **EZ Set Up** (See page 26).

D Connection with two cable boxes, A/B switch and splitter

The following connection is necessary to record a cable TV program (even those scrambled by a cable company) while watching another cable TV program. The following connection requires two cable boxes, a 2-way splitter and an A/B switch.

- Connect as shown below.



Using the A/B Switch

1 Set the A/B switch to the "A" position in the following situations.

- To watch a cable TV program while recording another program.
- To watch a cable TV program when the Unit is turned off.

2 Set the A/B switch to the "B" position in the following situations.

- To play back a cassette on the Unit.
- To watch a program being recorded, or to change (or watch) channels with the cable box 2. The output channel of the cable box 2 and the Unit must be the same.

NOTE

- If you turn off the cable box, you cannot record or view a CATV program.
- If you have questions regarding any connection procedure, please contact your cable company or the nearest Sharp Authorized Service.

After the Connection

Plug in the power cord of the TV. Then go to **EZ Set Up** (See page 26).

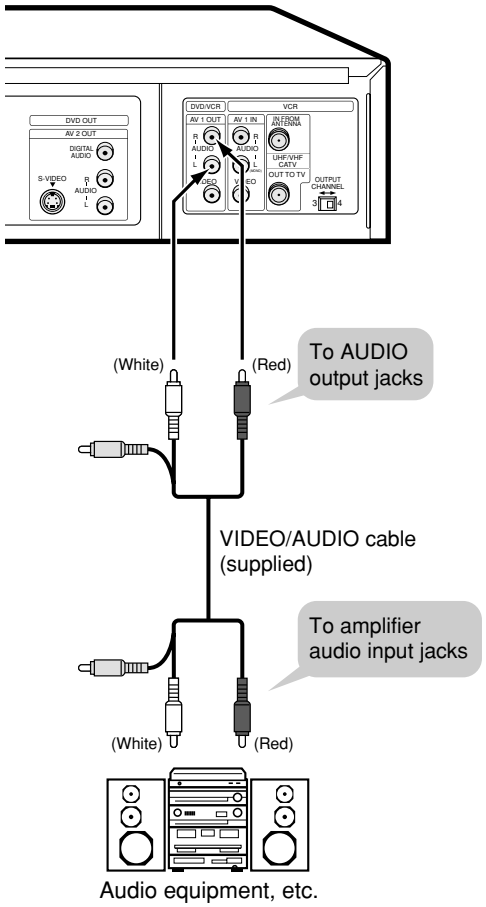
Audio Connections

Connecting to Audio Equipment

Connecting the Unit to audio equipment provides normal stereo sound plus powerful stereo sound enhanced by Dolby Digital (5.1 channel) and DTS.

Playing 2 channel audio

■ Analog Connection



Jack and Plug Colors
Audio Left: White
Audio Right: Red

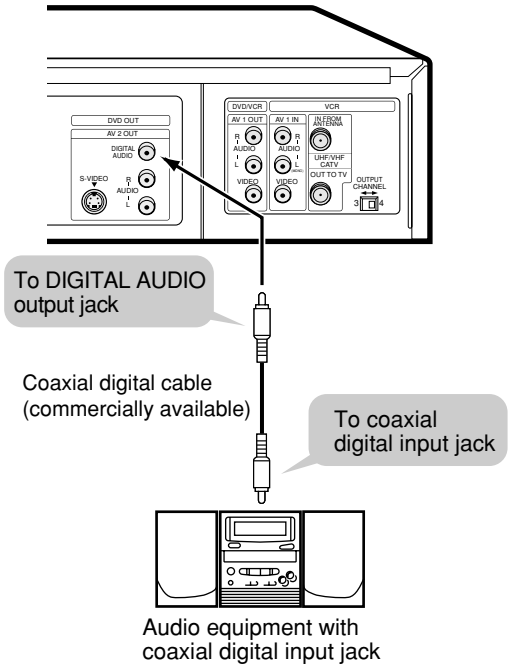
NOTE

- When connecting the audio equipment to the analog connection, we recommend that you set the "COMPRESSION" in "AUDIO SETUP" to "OFF" (See page 44).

Digital Connection to an MD to Record a CD

When you are using a digital connection to record the contents of a CD to an MD, the track numbers of the CD may not match the track numbers recorded to the MD.

■ Digital Connection



Important!

- When connecting the audio equipment to the digital connection, set the "DIGITAL" in "AUDIO SETUP" to "D-PCM" (See page 45).

NOTE

- No VCR sound will come out from the DIGITAL AUDIO output jack.

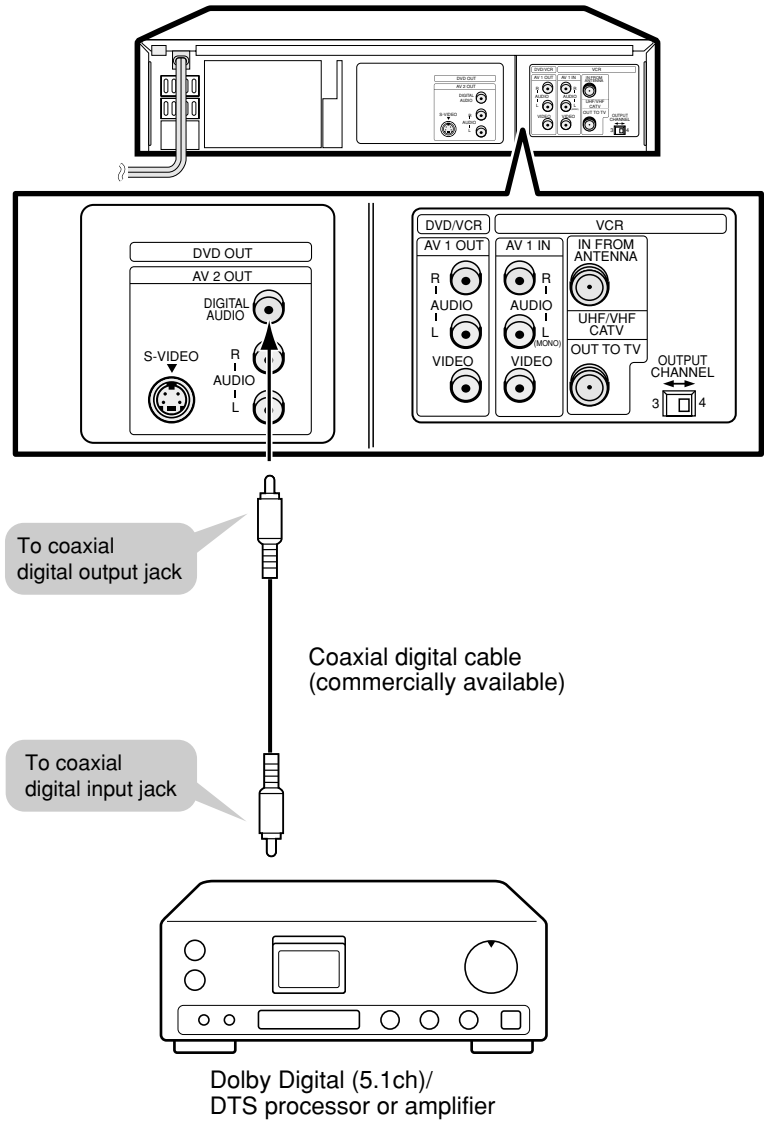
■ Digital Connection to Audio Equipment or MD Player without a Dolby Digital Decoder

- Audio CD
  Play the disc as you normally would, with the audio mode set to "L+R" (See page 64). With a digital connection, audio of a disc recorded with DTS sounds abnormal in this case.
- DVD Video Disc
  The digital connection illustrated above shows connection to audio equipment that is not equipped with a decoder. Because of this, it cannot produce 5.1 channel sound when playing a DVD whose audio track is recorded in Dolby Digital (5.1 channel), Dolby Surround (Pro Logic) or DTS. To play the audio on such a DVD, you must configure a digital connection with an audio processor or amplifier equipped with a decoder for the type of audio on the DVD you are attempting to play (See page 45). If you do not have an audio processor or amplifier equipped with the proper decoder, use a 2-channel analog (Down Mix) connection (See left). Note that discs recorded with Linear PCM audio should play normally using the digital connection illustrated above.

Playing Dolby Digital (5.1 channel) and DTS audio

- Connecting an amplifier with a Dolby Digital/DTS digital surround processor or a Dolby Digital/DTS digital surround decoder to the Unit's coaxial digital jack provides richer, more powerful audio play.
- To use DTS digital surround, use the Disc Menu screen (page 45) or the Function control screen (page 89) to select DTS audio.

■ Connection to a processor or amplifier with a coaxial digital input jack



Important!

- When using this connection, set the "DD DIGITAL" in "AUDIO SETUP" to "BITSTREAM" (See page 45).

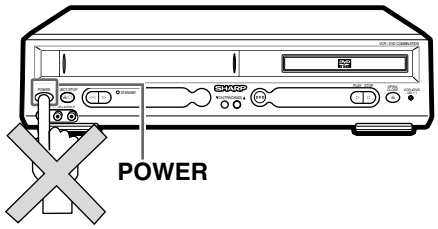
NOTE

- To play a disc recorded with DTS, you need to use DTS processor or amplifier.
- This connection is not possible if the processor or amplifier to which you want to connect does not have a coaxial digital input jack.
- Refer to the operation manual for the processor or amplifier for information about connecting to it.
- No VCR sound will come out from the DIGITAL AUDIO output jack.

EZ Set Up (With Auto Clock Setting)

Important! (Caution during EZ Set Up):

- Do not press the **POWER** button on the Unit or remote control.
- Do not insert a video cassette into the Unit.



The EZ Set Up function automatically sets the tuner channels and clock when the antenna cable is connected to the rear of the Unit and the power plug is then connected to an AC outlet.

Important!

When using a cable box:

- See **Cable TV Connections** on page 20.
- Leave POWER on the cable box turned on and select a channel that carries EDS signals.

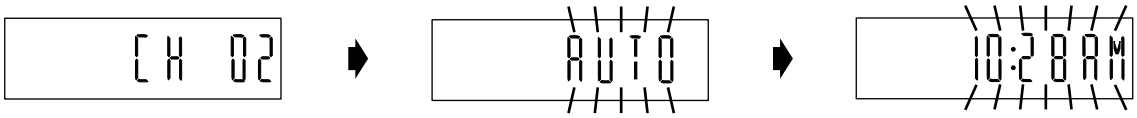
1 Make sure that the antenna cable is connected. For connection configuration, refer to **Connecting a TV** on page 17.

2 Connect the Unit's power plug to an AC outlet.

3 The tuner channels and clock will automatically be set.

- This Unit can monitor and use time-signals (EDS signals), which are provided by some TV stations, to automatically adjust the VCR clock. This Unit automatically searches EDS signals, but if you are in a hurry to use timer recording or know the channel of the EDS signal carrier in your area, follow the procedure in **Auto Clock Setting** or **Manual Clock Setting**.

During Auto Channel Setting → During Auto Clock Setting → EZ Set Up complete

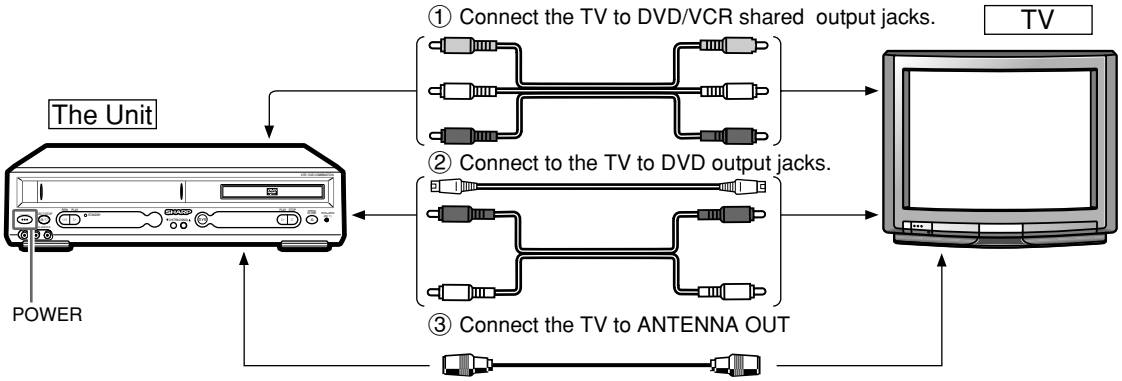


NOTE

- If power is supplied to the Unit before the cable is connected, EZ Set Up will not be able to preset the channels into memory. If this occurs, unplug the Unit from the power source and wait a few minutes. Check the cable /antenna connection and supply power to the Unit. EZ Set Up will automatically begin again.
- If the power is turned on during EZ Set Up, the Auto Channel setting will be interrupted and the tuner channels will not be able to be preset.
- Auto Clock Setting may take several minutes.
- If the Auto Clock Setting is not completed within 30 minutes, there may be no channels with EDS signals. In this case, set the clock manually. (See **Manual Clock Setting** on page 35.)
- If the antenna signal is weak, the Auto Clock Setting function may not operate.
- During initial channel setting, the channels are set into the AIR channel setting. To watch a cable TV channel, select "CATV" on the CHANNEL PRESET screen. (See **Channel Setting** on page 32.)

Preparations Before Using the Unit

The following preparations are necessary for watching the VCR or DVD.
Make sure that the Unit and the TV are connected as shown below.
The following pages describe how to operate this Unit.


① Connect the TV to DVD/VCR shared output jacks.
TV
The Unit
② Connect to the TV to DVD output jacks.
POWER
③ Connect the TV to ANTENNA OUT

Watching VCR

When ①, ② and ③ or when ① and ③ are connected

TV

Turn on the TV and switch the TV channel to the external “VIDEO” or “AV” channel which is connected to the DVD /VCR shared output jacks.

This Unit

1 Press **POWER**.

2 Move **VCR/DVD CHANGE Switch** on the remote control to **VCR**.

Setup Complete
Now you are ready to watch the VCR.

When only ③ is connected

TV

Turn on the TV and switch the TV to either channel 3 or 4 (the channel used for VCR).

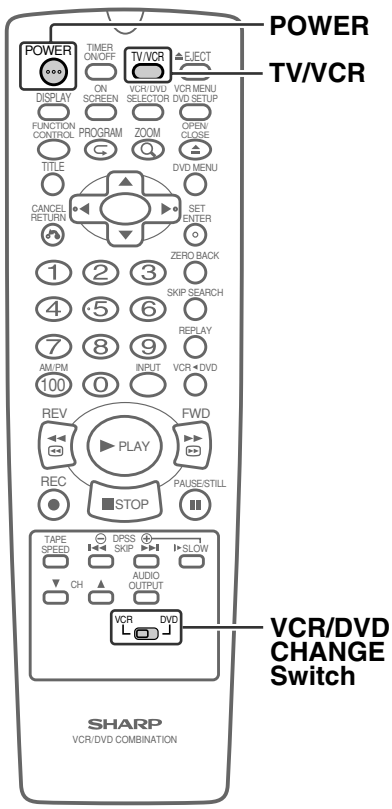
This Unit

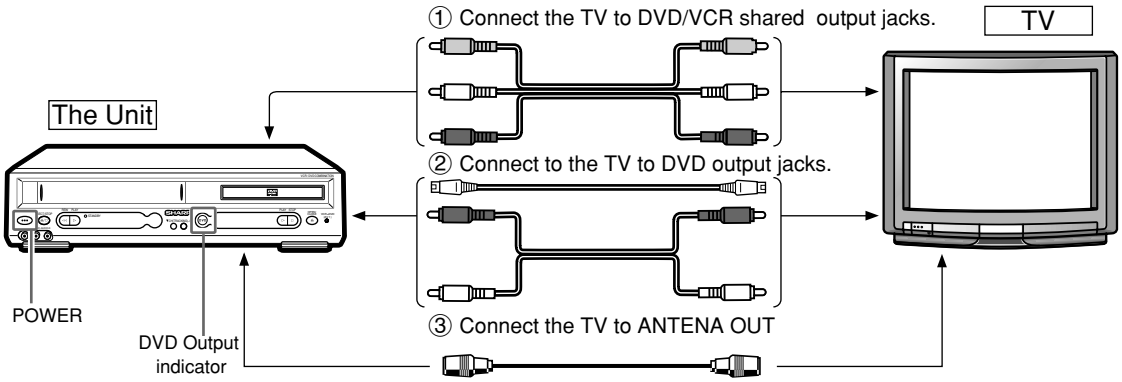
1 Press **POWER**.

2 Move **VCR/DVD CHANGE Switch** on the remote control to **VCR**.

3 Press **TV/VCR** on the remote control to display “VCR” on the VCR Front Panel Display.

Setup Complete
Now you are ready to watch the VCR.




① Connect the TV to DVD/VCR shared output jacks.
TV
The Unit
② Connect to the TV to DVD output jacks.
POWER
DVD Output indicator
③ Connect the TV to ANTENA OUT

Watching DVD

When ①, ② and ③ are connected

TV

Turn on the TV and switch the TV channel to the external input "VIDEO" or "AV" channel, which is connected to DVD output jack.

This Unit

1 Press **POWER**.

2 Move **VCR/DVD CHANGE Switch** on the remote control to **DVD**.

Setup complete
Now you are ready to watch the DVD.

When ① and ③ are connected

TV

Turn on the TV and switch the TV channel to the external "VIDEO" or "AV" channel which is connected to the DVD /VCR shared output jack.

This Unit

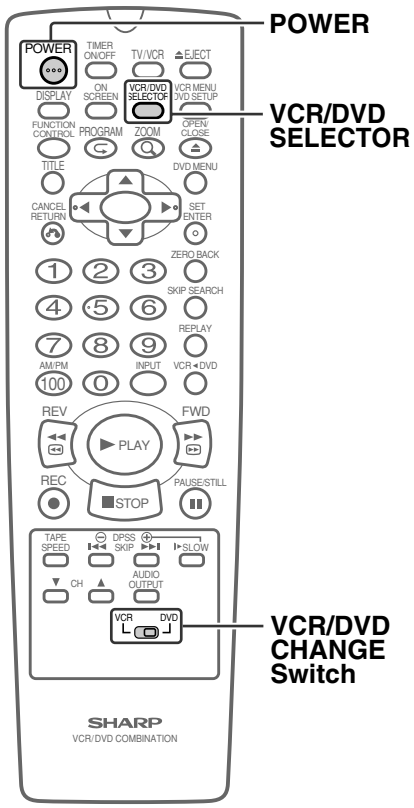
1 Press **POWER**.

2 Move **VCR/DVD CHANGE Switch** on the remote control to **DVD**.

3 Press **VCR/DVD SELECTOR** on the remote control to enter the **DVD** mode.
- The DVD Output indicator at the front of Unit lights up.

Setup complete
Now you are ready to watch the DVD.

NOTE
- You cannot watch DVD if only ③ is connected.



VCR Setup

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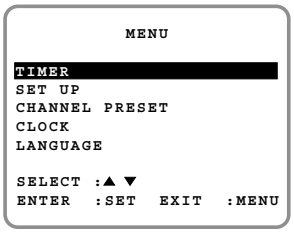
VCR Setup

Menu Screen

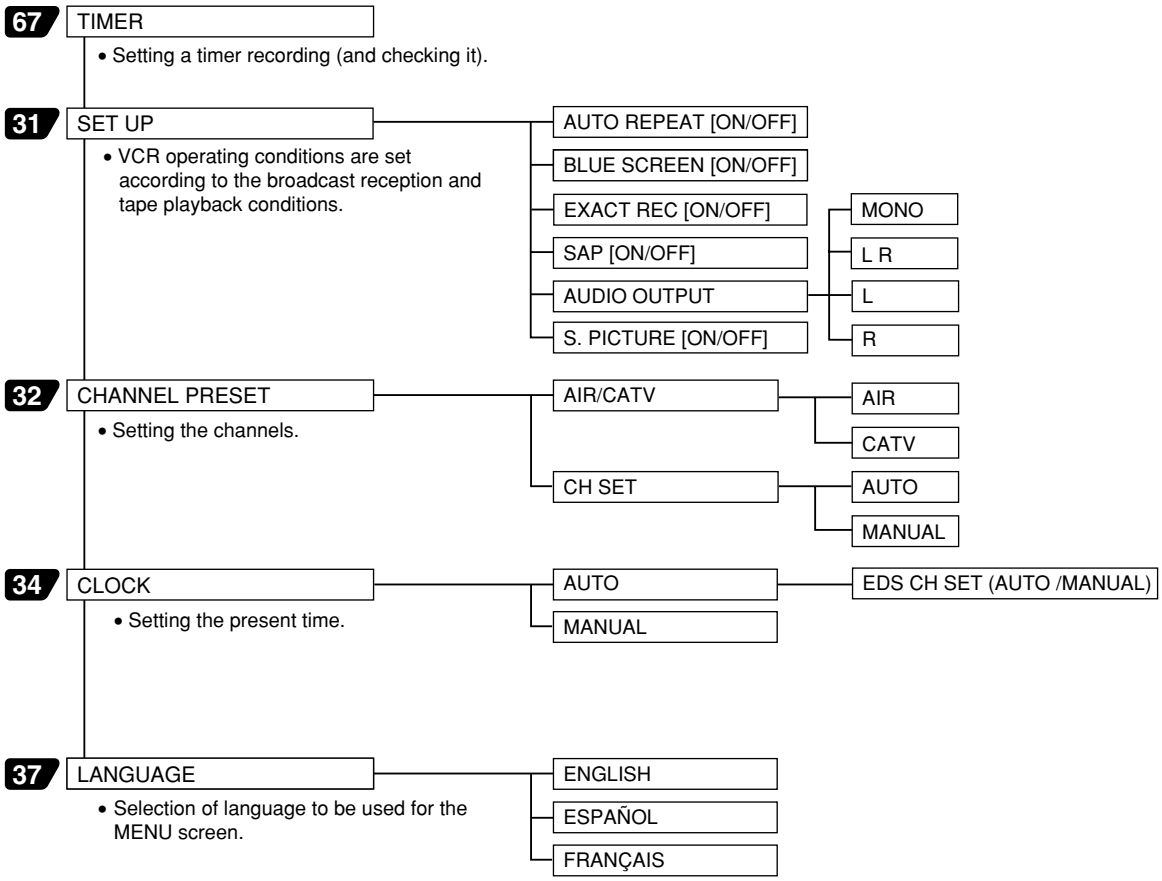
MENU screen is a home screen used to select various screen functions. A sub-menu will appear once you select an item for the menu. See the following pages for details on each menu procedure.

Menu Screen



MENU item list

Main Menu



• Numbers in refer to the pages where the setting procedures are described.

Mode Selection

You can use the SET UP–selection screen to select the mode for basic features.

Preparation

- See **Watching VCR** on page 27.

1 Press **VCR MENU** to display the menu screen.

When you use the Unit for the first time, press **VCR MENU**. "LANGUAGE" screen appears. You should set the language to be used in the OSD (On Screen Display). See **OSD Language Setting** on page 37.

2 Select "SET UP" with ▲ / ▼ and then press **SET**.

```
          MENU

TIMER
SET UP
CHANNEL PRESET
CLOCK
LANGUAGE

SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

3 Example: When you change the AUTO REPEAT and BLUE SCREEN settings.
Set "AUTO REPEAT" mode to "ON" or "OFF" with ◀ / ▶. Then press ▼.
(See **Auto Repeat** on page 58.)

```
→AUTO REPEAT      ON  OFF
 BLUE SCREEN      ON  OFF
 EXACT REC        ON  OFF
 SAP              ON  OFF
 AUDIO OUTPUT
          MONO LR  L R
 S. PICTURE       ON  OFF

SELECT :▲ ▼  CHANGE:◀ ▶
ENTER  :SET  EXIT  :MENU
```

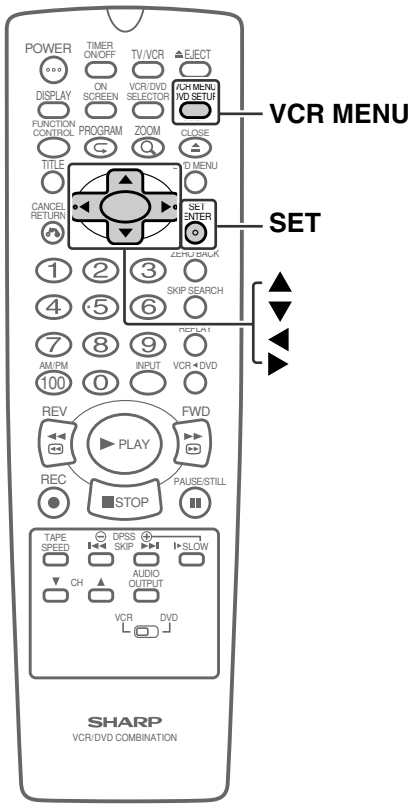
4 Set "BLUE SCREEN" mode to "ON" or "OFF" with ◀ / ▶. Then press ▼.
(See **Blue Screen Noise Elimination** on page 55.)

- You can change the EXACT REC, SAP, AUDIO OUTPUT and S.PICTURE settings the same way.

```
 AUTO REPEAT      ON  OFF
→BLUE SCREEN      ON  OFF
 EXACT REC        ON  OFF
 SAP              ON  OFF
 AUDIO OUTPUT
          MONO LR  L R
 S. PICTURE       ON  OFF

SELECT :▲ ▼  CHANGE:◀ ▶
ENTER  :SET  EXIT  :MENU
```

5 Press **SET** to enter.

- The screen returns to normal.



NOTE

- If you press **VCR MENU** to exit the mode selection screen in Step **5**, the data will not be stored. Be sure to press **SET** to store the data.

Channel Setting

Your Unit can receive a maximum of 181 channels as shown below by presetting the channels into memory. (VHF: 2 to 13, UHF: 14 to 69, CATV: 1 to 125)

Preparation

- See **Watching VCR** on page 27.

1 Press **VCR MENU**. Select “CHANNEL PRESET” with ▲ / ▼ and then press **SET**.

```
MENU

TIMER
SET UP
CHANNEL PRESET
CLOCK
LANGUAGE

SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

2 Select “AIR” or “CATV” with ◀ / ▶ and then press ▼.
(Example) AIR

- To watch cable TV after EZ Set Up, select “CATV”, press **SET**.

```
CHANNEL PRESET

→AIR/CATV        AIR CATV
 CH SET          AUTO MANUAL
```

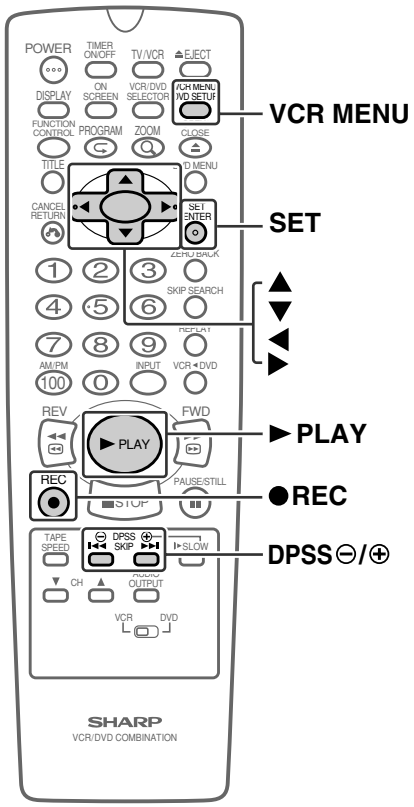
3 Set “CH SET” to “AUTO” with ◀ / ▶ and then press **SET**.

```
CHANNEL PRESET

 AIR/CATV        AIR CATV
→CH SET          AUTO MANUAL
```

4 The auto tuning will start.

- The channel display will count up, and when finished, the screen returns to normal.

```
                          02
AUTOMATIC TUNING.
PLEASE WAIT.
```



NOTE

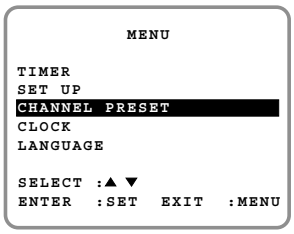
- Automatic tuning will not start unless the arrow is at “CH SET-AUTO” position.
- If a button is not pressed within 3 minutes during the setting procedure, the screen will return to normal.
- If the power is interrupted for more than 60 seconds, AIR / CATV selection must be set again.
- Automatic tuning will be interrupted if **►PLAY**, **●REC**, **VCR MENU** or **DPSS⊖/⊕** buttons are pressed before the screen returns to normal.

Adding Channel Memory/Erasing Channel Memory

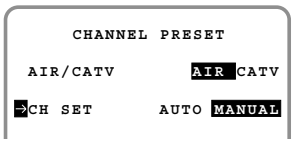
Use this function to manually add or erase channels to/from the memory.

1 Select the channel to be added with the number buttons and the channel to be erased with the **CH ▲ / ▼** or number buttons.

2 Press **VCR MENU**. Select “CHANNEL PRESET” with ▲ / ▼ and press **SET**.

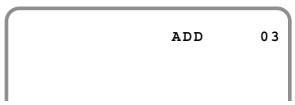


3 Select “CH SET” with ▲ / ▼ and then select “MANUAL” with ◀ / ▶. Then press **SET**.



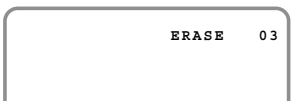
4 Select “ADD” if you want to add the channel memory or “ERASE” if you want to erase the channel memory with ◀ / ▶.

[ADD]

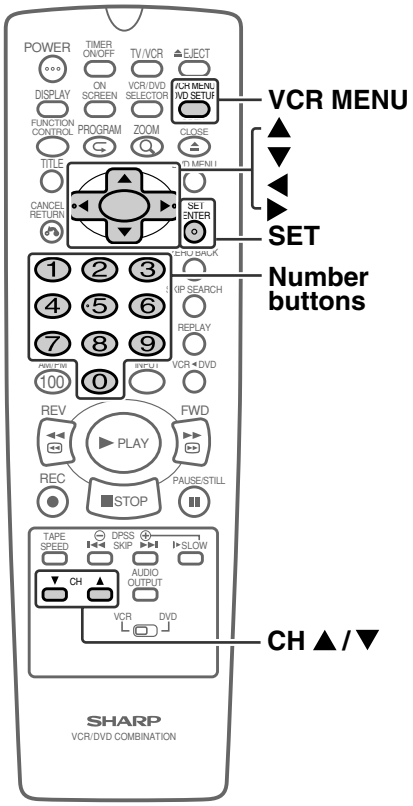


◀ / ▶

[ERASE]



5 Press **VCR MENU** to return to the normal screen.



NOTE

- If the power is interrupted for more than 60 seconds, the channel memory may be erased. If this happens, reset the channels again and reset AIR/CATV selection.
- If a button is not pressed within 3 minutes during the setting procedure, the screen will return to normal.

Clock Setting

Auto Clock Setting

(If you DO know a channel that carries EDS signals)

Preparation

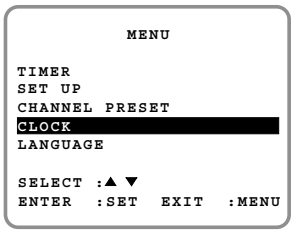
- See **Watching VCR** on page 27.

! Important!

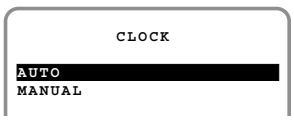
When using a cable box:

- See **Cable TV Connections** on page 20.
- Leave POWER on the cable box turned on and select a channel that carries EDS signals.

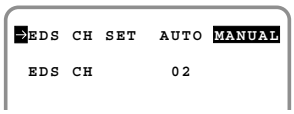
1 Press **VCR MENU**. Select “CLOCK” with ▲ / ▼ and then press **SET**.



2 Select “AUTO” with ▲ / ▼ and then press **SET**.



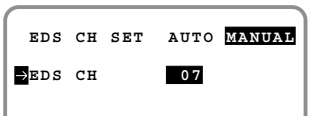
3 Set EDS CH SET mode to “MANUAL” with ◀ / ▶ and then press ▼.



4 Select a channel that carries EDS signals with ◀ / ▶.
(Example) 07

- The number of channels that can be selected depends on the mode setting on the CHANNEL PRESET screen. See **NOTE**.

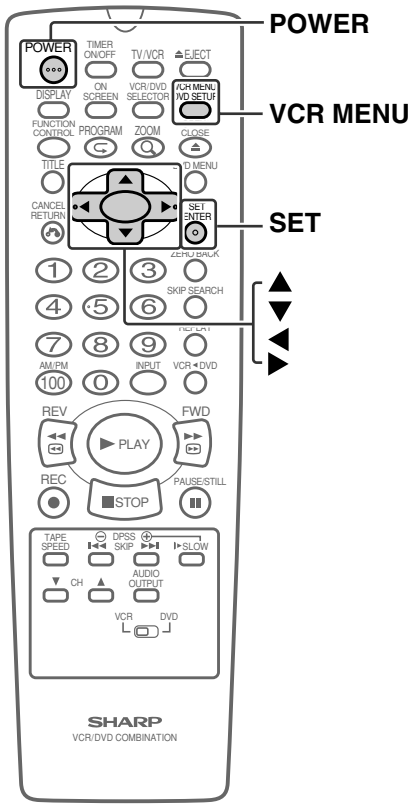
When using a cable box:
Input the output channel (02, 03, or 04) of the cable box.



5 Press **SET** to enter. The screen returns to normal.

6 Press **POWER** to turn off the Unit.

- The Auto Clock Setting function will automatically set the clock.



NOTE

- If the EDS CH SET mode is set to MANUAL mode in Step **3** and a channel that does not carry EDS signal is selected in Step **4**, the Auto Clock Setting function will not operate.
- In Step **4**, the number of channels that can be selected depends on the mode setting on the CHANNEL PRESET screen. See the table below.

AIR/CATV	Channels to be selected
AIR	02 ↔ 03 ↔ 04 ····· 68 ↔ 69 ↔ 02
CATV	01 ↔ 02 ↔ 03 ····· 124 ↔ 125 ↔ 01

- In Step **1**, if you press **VCR MENU** when operating the screen setting for the first time or after a power failure of more than 60 seconds, the LANGUAGE screen will appear.
- If you entered incorrect data during the setting procedure, re-enter the correct data in the following manner:
  ① Use ◀ / ▶ to select the data to be corrected.
  ② Set the correct data with ▲ / ▼.
  ③ After correcting the data in Step ②, press **SET** to enter.
- If you press **VCR MENU** in Step **5**, the data will not be stored.
- If a button is not pressed within 3 minutes during the setting procedure, the screen will return to the normal screen.

Manual Clock Setting

Preparation

- See **Watching VCR** on page 27.

1 Press **VCR MENU**. Select “CLOCK” with ▲ / ▼ and then press **SET**.

```
          MENU

TIMER
SET UP
CHANNEL PRESET
CLOCK
LANGUAGE

SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

2 Select “MANUAL” with ▲ / ▼ and then press **SET**.

```
          CLOCK

AUTO
MANUAL



SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

3 Select “TIME” with ◀ / ▶ and set time by holding ▲ / ▼.
(Example) 10:28 AM

- Number buttons can be used instead of ▲ / ▼ to set time and date. Press **AM/PM** to select AM or PM during time setting.

4 Select and set “DATE”, “YEAR” and “DST” in turn, in the same manner as in Step **3**.

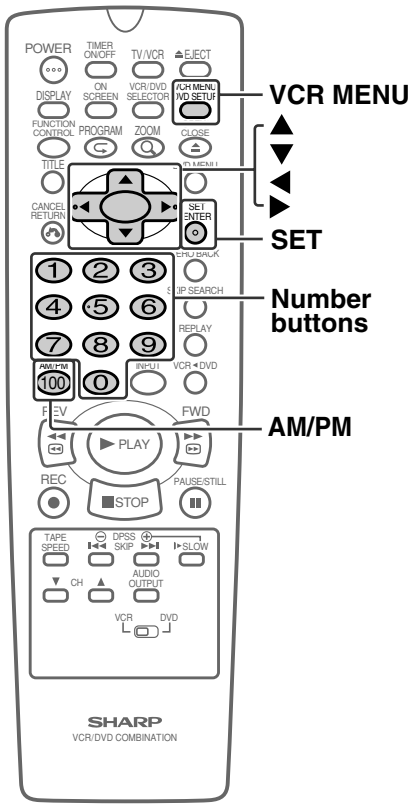
- See **Automatic Daylight Saving-Time (D.S.T.) Adjustment** on next page.

(Example) Jul. 4, 2001, DST: ON

```
          CLOCK

TIME      DATE    YEAR DST
10:28AM   7/04WED 01   ON



SELECT :◀ ▶  CHANGE:▲ ▼
ENTER  :SET  EXIT  :MENU
```

5 If the data is correct, press **SET** to enter.

- The screen returns to normal.



NOTE

- In Step **1**, if you press **VCR MENU** when operating the screen setting for the first time or after the power is interrupted for more than 60 seconds, the LANGUAGE screen will appear.
- If you entered incorrect data during the setting procedure, re-enter the correct data in the following manner:
  ① Use ◀ / ▶ to select the data to be corrected.
  ② Set the correct data with ▲ / ▼.
  ③ After correcting the data in Step ②, press **SET** to enter.
- If you press **VCR MENU** to exit the CLOCK screen in Step **5**, the data will not be stored.
- If a button is not pressed within 3 minutes during the setting procedure, the screen will return to the normal screen.

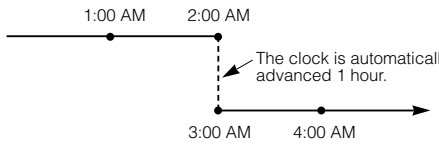
Automatic Daylight Saving-Time (D.S.T.) Adjustment

This Unit is equipped with an internal Automatic Daylight Saving-Time Adjustment function. In spring (first Sunday in April) and autumn (last Sunday in October), the time is adjusted as shown below. This function has been preset to ON at the factory. Set the D.S.T. mode in the clock setting screen.

Spring

Programmed timer recording set within this time frame (2:00 AM to 3:00 AM) will not be carried out.

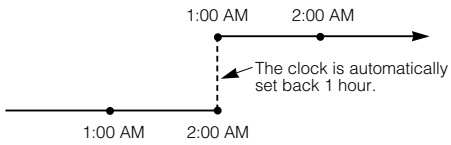
First Sunday in April (D.S.T. is ON)



Autumn

Because there will be two time frames from 1:00 AM to 2:00 AM, timer programming set between these times will be influenced by the time change.

Last Sunday in October (D.S.T. is ON)



NOTE

- If the timer recording program is affected by the D.S.T. time change, check your TV listing and find out when it reflects the time change. Some TV listings will indicate the time change in the same manner as is programmed in this Unit, but others do not show the time change until the next morning. In that case, when programming a timer, use the CLOCK screen to set the D.S.T. mode to OFF so the time change will not be carried out.

OSD Language Setting

Preparation

- See **Watching VCR** on page 27.

1 Press **VCR MENU** to display menu screen.

> **Caution:**
>
> When you use the Unit for the first time or the power is interrupted for more than 60 seconds (power failure, etc.), press **VCR MENU**. "LANGUAGE" screen in the step **3** appears. You should set the language to be used in the OSD.

2 Select "LANGUAGE" with ▲ / ▼ and then press **SET**.

```
          MENU

TIMER
SET UP
CHANNEL PRESET
CLOCK
LANGUAGE

SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

3 Select the language you want to use with ▲ / ▼.
(Example) ENGLISH

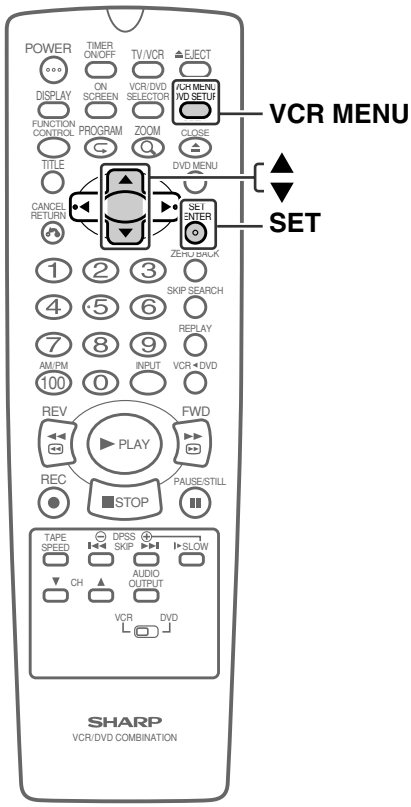
```
         LANGUAGE

ENGLISH
ESPAÑOL
FRANÇAIS



SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

4 Press **SET** to enter.

- The screen returns to normal.

NOTE

- If you press **VCR MENU** to exit the LANGUAGE screen in Step 3, the data will not be stored.

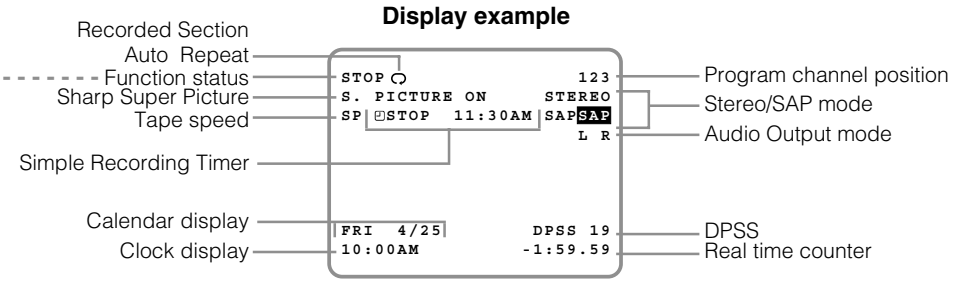


VCR Display Information

To facilitate the operation and check the current VCR mode information, the following OSD (On Screen Display) will appear on the TV screen when using this Unit.

PLAY	Play
FF	Fast forward
REW	Rewind
STOP	Stop
REC	Rec
PAUSE	Rec pause

Display example



NOTE

- If the clock is not set, the time and date will not be displayed.

Each time **ON SCREEN** on the remote control unit is pressed, the display on the TV screen changes the mode in the following sequence:

↱AUTO mode → FULL mode → Counter mode → OFF mode ┐

- **AUTO mode** ..... The current function status or the number of the channel will be displayed in the upper section of the TV screen for about 3 seconds.
- **FULL mode** ..... Program channel position, Function status, Real time counter, Clock display will be displayed.
- **Counter mode**..... DPSS, Real time counter will be displayed.
- **OFF mode** ..... Does not display indicators (It is recommended to set DISPLAY off when this unit for playback and dubbing.).

Each time **DISPLAY** on the remote control unit is pressed, the VCR Front Panel Display changes the mode in the following sequence:

↱Channel setting mode → Tape counter mode → Clock mode ┐

- **Channel setting mode** .. The number of the channel will be displayed. It does not display during playback.
- **Tape counter mode** ..... The current tape position will be displayed.
- **Clock mode**..... The current time will be displayed.

This Unit displays the information shown below on the VCR Front Panel Display depending on the operation status.

Display Examples

Symbol	VCR Front Panel Display	Function Status	Symbol	VCR Front Panel Display	Function Status
——	STOP	Stop	——	FF	Fast forward
►	PLAY	Play	——	REW	Rewind
- ► -	- PLAY -	Video Search, Slow, Still, Frame Advance	- REC -	PAUSE	Rec Pause
			⊡	——	Cassette-in
REC	REC	Record	VCR	——	Unit in VCR mode

NOTE

- Tape counter is displayed during playback, fast forward or rewind operation.
- When the power is turned off, the clock is displayed and the VCR Front Panel Display becomes darker.
- The display will return to the original mode (counter or clock display) 3 seconds after the VCR enters the operation mode.

DVD Setup

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Setting the DOLBY DIGITAL 45
DISC LANGUAGE Setting 46
Setting SUBTITLE, AUDIO and MENU languages from 8 languages 46
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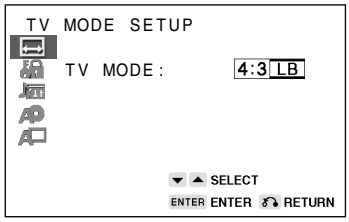
About the SETUP Screen

This section describes how to specify various basic settings using the SETUP screen. The list below shows all the items you can set and adjust. See the following pages for details on each setup procedure.

- The setting procedures described on the following pages are available only in STOP mode.
- The OSD (On Screen Display) screens used in this Operation Manual are purely for the purposes of explanation. The actual displays (set displays) may differ slightly from what is shown here.

(Example) TV MODE SETUP



Setup item list

Main Menu

41 TV MODE SETUP
- Specifies the setting for the type of TV connected and the playback format for wide-screen video material.

→ 4 : 3 PS
→ 4 : 3 LB
→ 16 : 9

42 PARENTAL SETUP [1 to 8 (ON)/OFF]
- Sets or changes the parental level (1 to 8).
- Used to set or change the password used to prevent the parental level from being changed too easily.

44 AUDIO SETUP
- Use this setting for increasing the average volume of Dolby Digital audio when playing a DVD.
- Use this setting for specifying either "BITSTREAM" or "D-PCM" as the digital type.

→ COMPRESSION [ON/OFF]
→ DIGITAL
  → BITSTREAM
  → D-PCM

46 DISC LANGUAGE
- Use this setting for selecting languages of subtitle, audio track and disc menu recorded on a disc.

→ SUBTITLE
  → ENGLISH
  → SPANISH
  → FRENCH
  → ITALIAN
  → GERMAN
  → CHINESE
  → SWEDISH
  → DUTCH
  → OTHER
→ AUDIO
  → Languages you can select are same as above.
→ MENU
  → Languages you can select are same as above.

48 OSD LANGUAGE SETUP
- Use this setting for selecting OSD languages.

→ ENGLISH
→ ESPAÑOL
→ FRANÇAIS

- Numbers in ▬ refer to the pages where the setting procedures are described.

TV MODE Setting

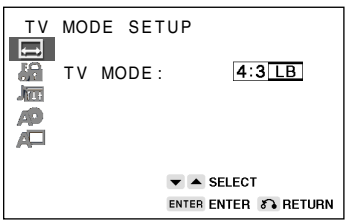
Preparation

- See **Watching DVD** on page 28.

1 While this Unit is stopped, press **DVD SETUP** to display the SETUP screen.

When you use the Unit for the first time, press **DVD SETUP**. "OSD LANGUAGE SETUP" screen appears. You should set the language to be used in the OSD (On Screen Display). See **OSD LANGUAGE setting** on page 48.

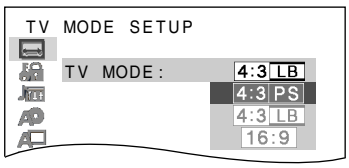
2 Use ▲ or ▼ to select the " TV MODE SETUP".

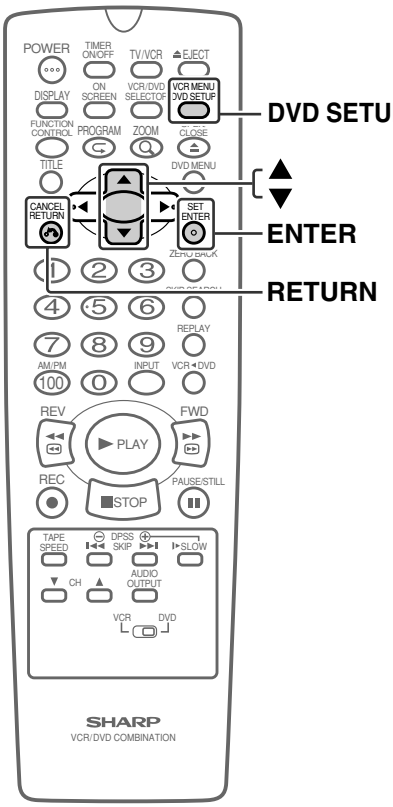


3 Press **ENTER** to display the items you can select.

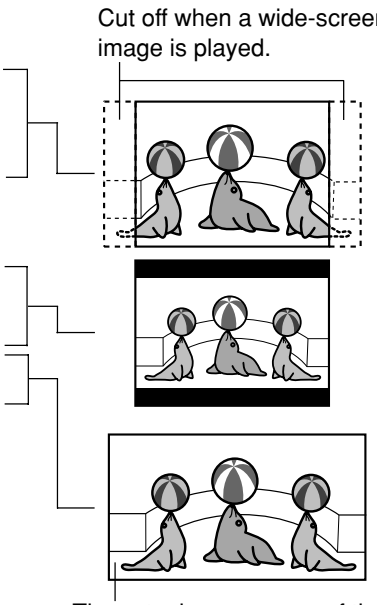
4 Use ▲ or ▼ to select 4:3 LB, 4:3 PS or 16:9.

(Example) Selecting 4:3 PS.





- 4:3 PS — (Pan & Scan mode): When wide-screen video material is played, this mode clips the right and left sides of the image so that it can be viewed on a conventional TV screen.
  - Some wide-screen DVDs that do not permit Pan & Scan mode playback are automatically played in letterbox mode (black bands top and bottom).
- 4:3 LB — (Letterbox mode): When wide-screen video material is played in this mode on a conventional TV screen, black bands appear at the top and bottom of the screen.
- 16:9 — (Wide-screen TV): This is the correct mode for playing wide-screen videos on a wide-screen TV.
  - You must also set the screen mode on your wide-screen TV to "FULL".


Cut off when a wide-screen video image is played.
The actual appearance of the image depends on the screen mode setting of your wide-screen TV.

5 Press **ENTER** to confirm the "TV MODE" setting.

6 If you want to complete the settings here, press **RETURN** to exit the SETUP screen and return to the normal screen.

- If you intend to go on and specify other settings (PARENTAL, AUDIO, DISC LANGUAGE or OSD LANGUAGE), press ▲ or ▼ to display other SETUP screen without pressing **RETURN**.

PARENTAL Level Setting

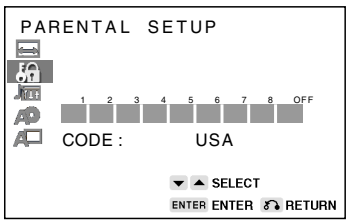
Certain discs come preset with country codes and parental level settings defined for particular countries. Discs equipped with the parental lock function are rated according to their content. The rated content allowed by a parental lock level and the way a DVD can be controlled vary from disc to disc. Some discs, for example, may let you edit out scenes and replace them with scenes suitable for children. You can also use the parental lock to completely disable playback of the DVD.

Preparation

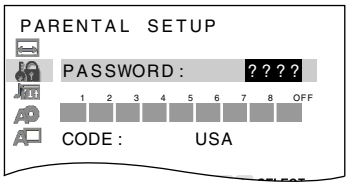
- See **Watching DVD** on page 28.

1 Press **DVD SETUP** to display the SETUP screen.

2 Use ▲ or ▼ to select the " PARENTAL SETUP".



3 Press **ENTER** to display the password specification and verification screen.



4 Use the number buttons (**0** to **9**) to enter a 4-digit password.

PASSWORD : 1 2 3 4 — Displayed when "1234" is being entered as the password.

- When you have finished entering your 4-digit number, ⊟⊟⊟⊟ (password verification display) appears.

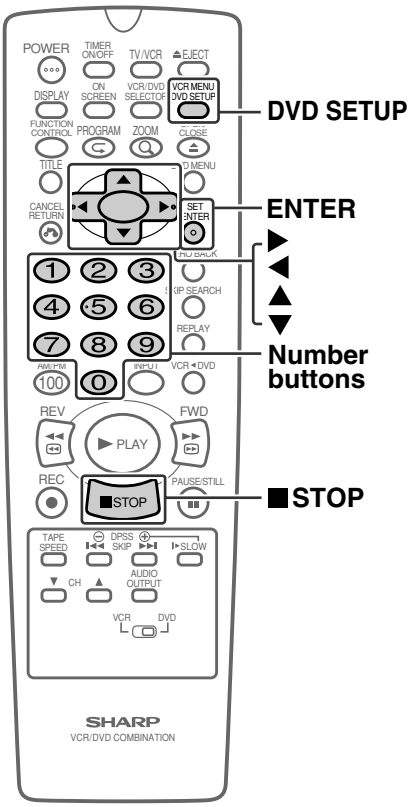
If you have already set your password:
⊟⊟⊟⊟ appears in step 3 above.

NOTE

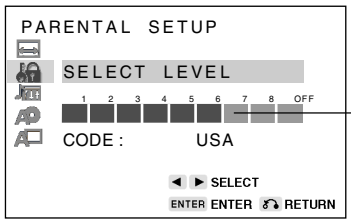
- Enter the numbers slowly as each number is stored separately.
- Press ◀ to return to the previous digit.
- If you enter the wrong number three times in succession, the normal screen reappears.

If you forget your password, you can erase your current password by pressing ■**STOP** four times.

5 Press **ENTER** to confirm your password, re-enter the numbers you entered in step 4 (using the number buttons).



6 Press **ENTER** and then use ◀ or ▶ to change the parental level.



Can be changed to any number between 1 and 8 or OFF.

- Level 1: for most restricted viewing → Level 8: for adult viewing (The smaller the number, the greater the level of restriction.)
- When "PARENTAL" is set to "OFF", DVD discs can be played back regardless of the parental level.

The parental level for U.S.A. is as follows.

Level 7:	NC-17	Level 6:	R	Level 4:	PG13
Level 3:	PG	Level 1:	G		

The parental level set up for Canada is prepared for future use. As for the set up of an appropriate level, please check the level when you purchase your DVD disc equipped with the parental feature.

7 Press ▼ to select "CODE" and then use ◀ or ▶ to select the desired country code.

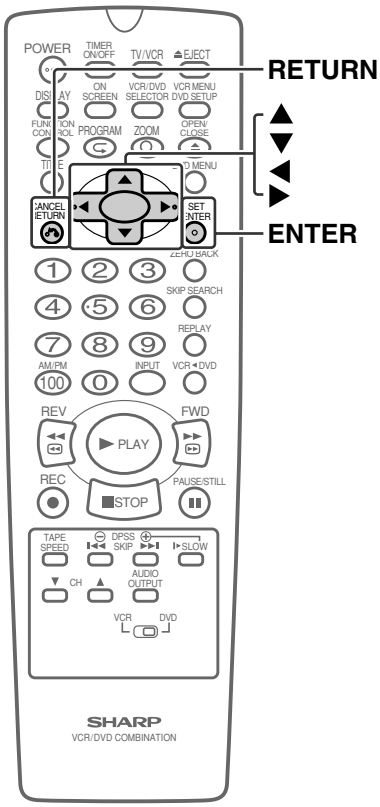
8 Press **ENTER** to confirm the setting.
- If you want to go on and specify the other settings, use ▲ or ▼ to display other SETUP screen. However, press **RETURN** if you want to exit SETUP screen.

! Important!

- Be sure to try playing back the disc to confirm that the parental level setting is working correctly. If it is not working correctly, try changing the country code.

NOTE

- You can use the parental lock function only with DVD discs that are equipped with the parental lock feature.
- On some DVD discs, the PARENTAL level setting is fixed and cannot be modified.
- The parental level depends on countries. If you do not set the country code correctly, it fails to work correctly.
- Some DVD discs allow the viewer to temporarily change the parental level setting to view the original scenes. When this prompt appears, input the password to view the original scenes.



Country Code List

USA	FINLAND
CANADA	BELGIUM
JAPAN	HONG KONG
GERMANY	SINGAPORE
FRANCE	THAILAND
UK	MALAYSIA
ITALY	INDONESIA
SPAIN	TAIWAN
SWISS	PHILIPPINE
SWEDEN	AUSTRALIA
HOLLAND	RUSSIA
NORWAY	CHINA
DENMARK	–

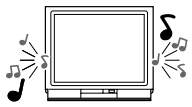
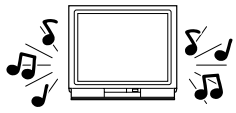
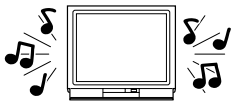
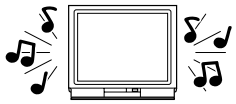
AUDIO Setting

COMPRESSION ..... Use this setting for increasing the average volume of Dolby Digital audio when playing a DVD.

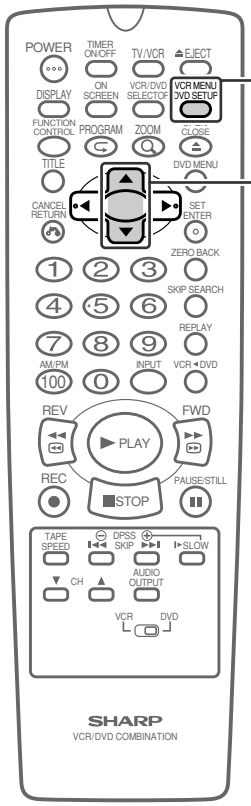
DIGITAL ..... Use this setting for specifying the type of digital output when playing a disc recorded using Dolby Digital.

Setting the COMPRESSION (Dolby Digital output level)

When Dolby Digital is used to record the audio on a DVD disc, the average overall volume level of the audio is relatively lower than that produced by an audio CD. This is to provide the widest possible dynamic range. To counteract this, this Unit automatically raises the overall average volume level of a disc recorded using Dolby Digital to a level that is similar to that of an audio CD.

	COMPRESSION: **OFF**	COMPRESSION: **ON**
DVD Dolby Digital audio	 • Low audio level	 • Audio level the same as audio CD, etc.
Audio CDs		

- **OFF .....** Audio level recorded on disc is played back without modification.
- **ON .....** Dolby Digital average audio level is increased so it sounds similar to that of an audio CD.

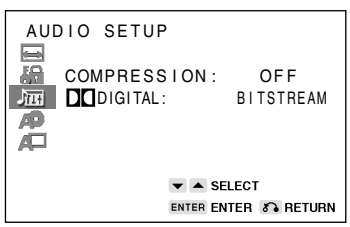


Preparation

- See **Watching DVD** on page 28.

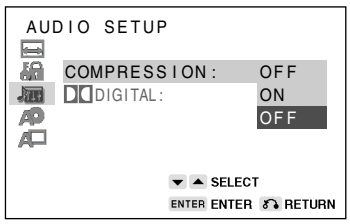
1 Press **DVD SETUP** to display the SETUP screen.

2 Use ▲ or ▼ to select the " AUDIO SETUP".



3 Press **ENTER** and then use ▲ or ▼ to select “COMPRESSION”.

4 Press **ENTER** to display the settings you can select.



5 Use ▲ or ▼ to select “ON” or “OFF”.
- Use of the “OFF” setting is recommended when the Unit is connected to audio equipment.

6 Press **ENTER** to confirm the setting.
- When you have completed the above setting, press **RETURN** to exit the SETUP screen. However, if you want to specify the “ DIGITAL” setting in succession, proceed to step 1 below.

NOTE
- Whenever the “COMPRESSION” setting is “ON”, VIRTUAL Dolby setting is automatically changed to “OFF”.

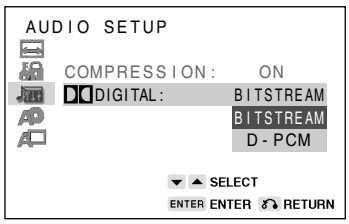
Setting the DOLBY DIGITAL

When playing a disc recorded using Dolby Digital (5.1ch), you can specify either “BITSTREAM” or “D-PCM” as the digital type output.

- Before setting the “ DIGITAL” , perform the step 1 to 3 on pages 44 and 45.

1 Press **ENTER** and then use ▲ or ▼ to select “ DIGITAL”.

2 Press **ENTER** to display the settings you can select.



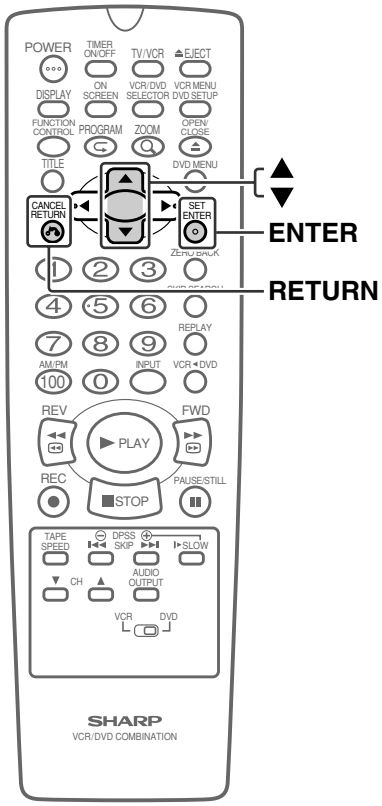
3 Use ▲ or ▼ to select “BITSTREAM” or “D-PCM”.

BITSTREAM: Use this setting for a digital connection of a receiver (amplifier) equipped with a Dolby Digital decoder.

D-PCM: (Down Mix PCM) Use this setting for a digital connection to the PCM digital input jack of a DAT or MD, or for a digital connection to a receiver (amplifier) that does not have a Dolby Digital decoder.

4 Press **ENTER** to confirm the setting.

5 When you have completed the setting above, press **RETURN** to exit the SETUP screen. However, if you want to go on and specify the other settings, use ▲ or ▼ to display other SETUP screen.



DISC LANGUAGE Setting

Use this setting for selecting the language for subtitles, audio tracks and disc menu.

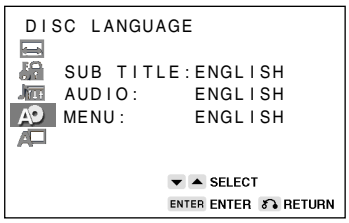
Setting SUBTITLE, AUDIO and MENU languages from 8 languages

Preparation

- See **Watching DVD** on page 28.

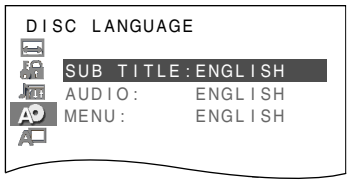
1 Press **DVD SETUP** to display the SETUP screen.

2 Use ▲ or ▼ to select the " DISC LANGUAGE".



3 Press **ENTER** and then use ▲ or ▼ to select "SUBTITLE", "AUDIO" or "MENU".

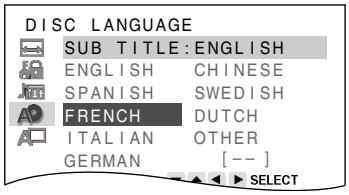
(Example) Selecting "SUBTITLE"



4 After selecting the item, press **ENTER**.

5 Select the language you want to use with ▲, ▼, ◀ and ▶.

(Example) Selecting "FRENCH"

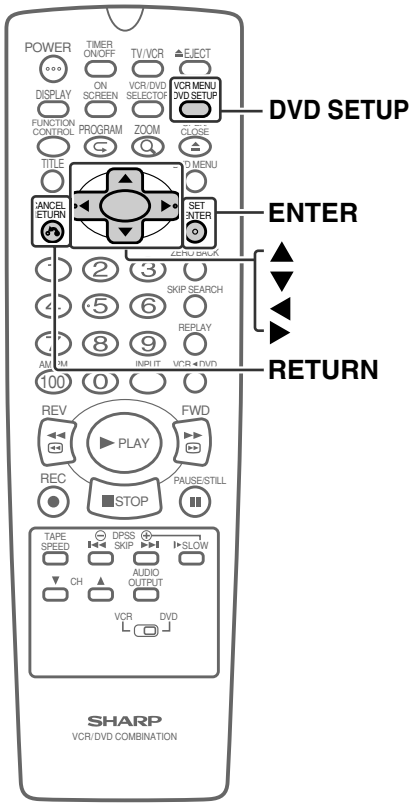


- **If you want to use any languages which are not on the OSD, proceed to step 1 under "Selecting languages from OTHER" on next page.**

6 Press **ENTER** to confirm the setting.

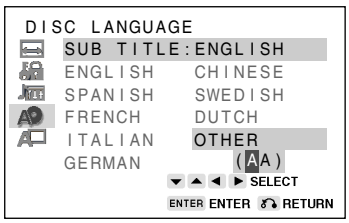
7 Repeat steps 4 to 7 above to go on with other "DISC LANGUAGE" settings in succession.

- If you want to complete the setting here, press **RETURN** to exit the SETUP screen and return to the normal screen. However, if you want to display other SETUP screens, press ▲ or ▼ without pressing **RETURN**.



Selecting languages from OTHER

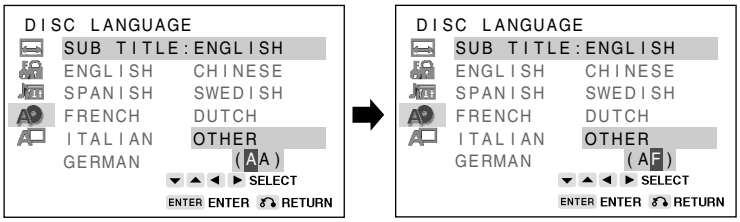
1 Select “OTHER” with ▲, ▼, ◀ and ▶, then press **ENTER** to set the “OTHER” input item (two letters).



2 **Example: To select “AF” (Afrikaans)**
Use ▲ or ▼ to select “A” as the first letter, use ◀ or ▶ to move to the second place, then use ▲ or ▼ to select “F”.

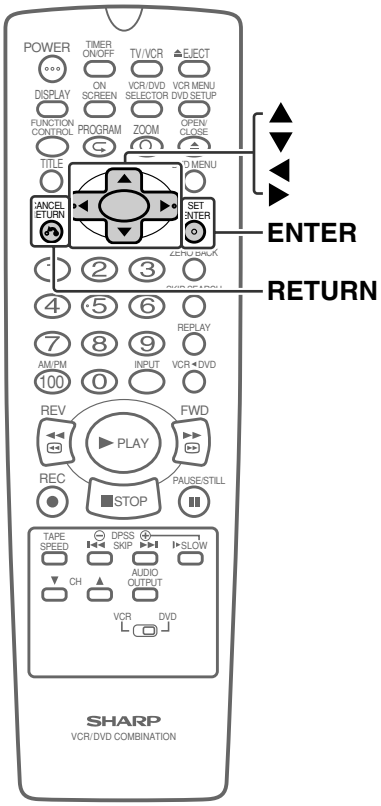
NOTE

- When “A” is selected as the first letter, only letters to the right of codes beginning with “A” can be selected as the second letter. Refer to the codes beginning with “A” on “**Language Code List for Disc Language**” (see page 50).
  Example: First letter-A
  Second letter-A,B,F,M,R,S,Y or Z



3 Press **ENTER** to confirm the setting.

- If you want to complete the setting here, press **RETURN** to exit the SETUP screen and return to the normal screen. However, if you want to specify other “DISC LANGUAGE” setting in succession, press **ENTER** and then select the setting item with ▲ and ▼.



OSD LANGUAGE Setting

Preparation

- See **Watching DVD** on page 28.

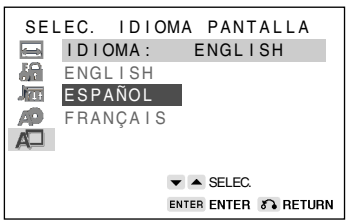
1 Press **DVD SETUP**. SETUP screen appears.

> **Caution:**
>
> When you use the Unit for the first time, press **DVD SETUP**. "OSD LANGUAGE SETUP" screen in the Step 3 appears. You should set the language to be used in the OSD.

2 Use ▲ or ▼ to select the " OSD LANGUAGE SETUP".

3 Press **ENTER** to display the languages you can select.

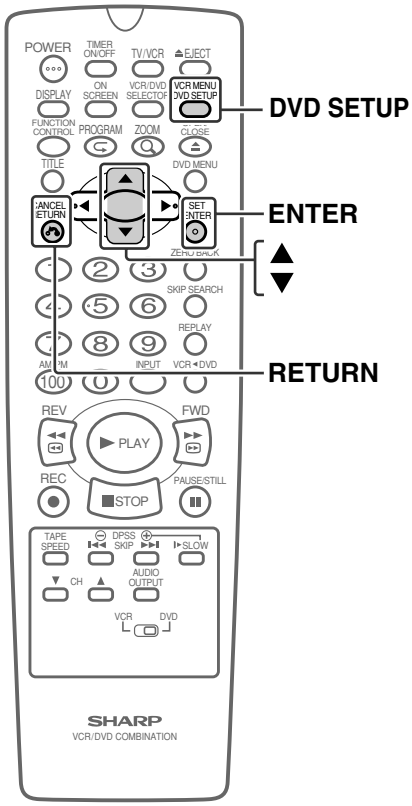
4 Use ▲ or ▼ to select the language you want to use. For (Example) "ESPAÑOL"



5 Press **ENTER** to confirm the setting.

6 If you want to complete the settings here, press **RETURN** to exit the SETUP screen and return to the normal screen.

- If you intend to go on and specify other settings, press ▲ or ▼ to display the other SETUP screens without pressing **RETURN**.



DVD Display Information

Operation Mode Indicators

Each time **ON SCREEN** on the remote control unit is pressed, the display on the TV screen changes the mode in the following sequence:

↱AUTO mode → ON mode → OFF mode┐

- **AUTO mode** .... Displays indicators for 3 seconds when operation begins.
- **ON mode** ..... Displays indicators continually until the operation mode is changed.
- **OFF mode** ..... Does not display indicators.

Each time **DISPLAY** on the remote control unit is pressed, the DVD Front Panel Display changes the mode in the following sequence:

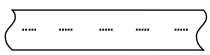
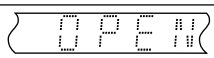
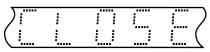
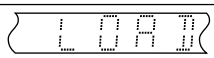
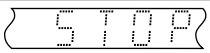
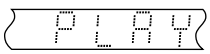
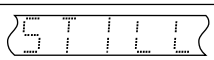
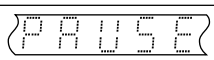
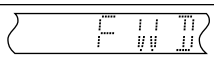
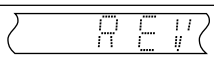
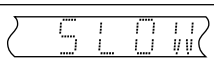
↱Time mode → Operation Status mode → Title mode┐

- **Time mode** ..... Displays the playing time*.
- **Operation Status mode** .... Displays the operation you perform such as “PLAY”, “REV”.
- **Title mode** ..... Displays the total number of titles, chapters, or tracks.

* *When the disc you attempt to play has no information on time, the operation status is displayed.*

This Unit displays the information shown below on the TV screen and on the DVD Front Panel Display depending on the operation status.

Display Examples

	TV Screen	DVD Front Panel Display	Remarks
If no disc is loaded or an unplayable disc is loaded when this Unit is switched on			“– – – – –” appears when the tray is closed and: 1) There is no disc in the tray. 2) The disc type is not DVD or CD. 3) The disc is not loaded correctly (upside-down, etc.)
Tray open			
Tray closed			
Loading			
Stopped	■		The indicator changes to show other indicators (total time, etc.)
Playing	▶		
Still/Paused	❚❚		When a DVD is played back.
			When an audio CD is played back.
Fast forward	▶▶		
Fast reverse	◀◀		
Slow	❙▶		Does not work with CDs.

Region (Local) Number Error Indicator

If the region (local) number of the disc that you attempt to play differs from the region number of this Unit (see page 8), “ REGION CODE ERROR” appears on the TV screen and the disc tray slides out. (The disc cannot be played.)

Language Code List for Disc Language

Code	Language Name	Code	Language Name	Code	Language Name	Code	Language Name
AA	Afar	FY	Frisian	MG	Malagasy	SL	Slovenian
AB	Abkhazian	GA	Irish	MI	Maori	SM	Samoan
AF	Afrikaans	GD	Scots Gaelic	MK	Macedonian	SN	Shona
AM	Ameharic	GL	Galician	ML	Malayalam	SO	Somali
AR	Arabic	GN	Guarani	MN	Mongolian	SQ	Albanian
AS	Assamese	GU	Gujarati	MO	Moldavian	SR	Serbian
AY	Aymara	HA	Hausa	MR	Marathi	SS	Siswat
AZ	Azerbaijani	HI	Hindi	MS	Malay	ST	Sesotho
BA	Bashkir	HR	Croatian	MT	Maltese	SU	Sundanese
BE	Byelorussian	HU	Hungarian	MY	Burmese	SV	Swedish
BG	Bulgarian	HY	Armenian	NA	Nauru	SW	Swahili
BH	Bihari	IA	Interlingua	NE	Nepali	TA	Tamil
BI	Bislama	IE	Interlingue	NL	Dutch	TE	Telugu
BN	Bengali;	IK	Inupiak	NO	Norwegian	TG	Tajik
	Bangla	IN	Indonesian	OC	Occitan	TH	Thai
BO	Tibetan	IS	Icelandic	OM	(Afan) Oromo	TI	Tigrinya
BR	Breton	IT	Italian	OR	Oriya	TK	Turkmen
CA	Catalan	IW	Hebrew	PA	Panjabi	TL	Tagalog
CO	Corsican	JA	Japanese	PL	Polish	TN	Setswana
CS	Czech	JI	Yiddish	PS	Pashto, Pushto	TO	Tonga
CY	Welsh	JW	Javanese	PT	Portuguese	TR	Turkish
DA	Danish	KA	Georgian	QU	Quechua	TS	Tsonga
DE	German	KK	Kazakh	RM	Rhaeto-	TT	Tatar
DZ	Bhutani	KL	Greenlandic		Romance	TW	Twi
EL	Greek	KM	Cambodian	RN	Kirundi	UK	Ukrainian
EN	English	KN	Kannada	RO	Romanian	UR	Urdu
EO	Esperanto	KO	Korean	RU	Russian	UZ	Uzbek
ES	Spanish	KS	Kashmiri	RW	Kinyarwanda	VI	Vietnamese
ET	Estonian	KU	Kurdish	SA	Sanskrit	VO	Volapük
EU	Basque	KY	Kirghiz	SD	Sindhi	WO	Wolof
FA	Persian	LA	Latin	SG	Sangho	XH	Xhosa
FI	Finnish	LN	Lingala	SH	Serbo-	YO	Yoruba
FJ	Fiji	LO	Laothian		Croatian	ZH	Chinese
FO	Faroese	LT	Lithuanian	SI	Singhalese	ZU	Zulu
FR	French	LV	Latvian, Lettish	SK	Slovak		

Watching the VCR

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Connecting the Unit and TV using an antenna cable and the DVD/VCR shared output jack

TV

Turn on the TV and switch the TV channel to the external “VIDEO” or “AV” channel which is connected to the DVD /VCR shared output jack.

This Unit

1. Press **POWER**.
2. Move **VCR/DVD CHANGE Switch** on the remote control to **VCR**.

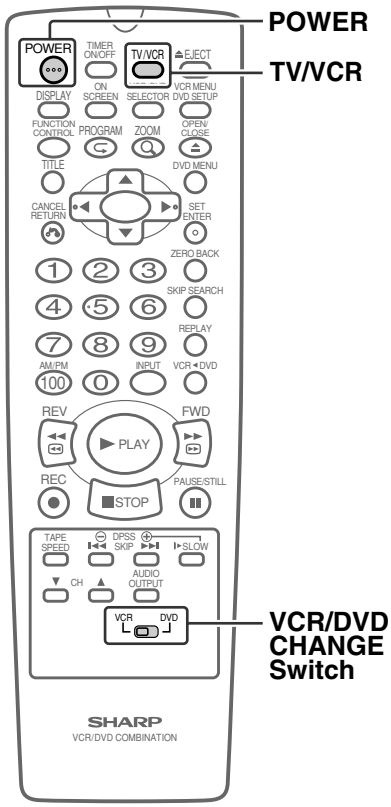
Connecting the Unit and TV using only an antenna (coaxial) cable

TV

Turn on the TV and switch the TV to either channel 3 or 4 (the channel used for VCR).

This Unit

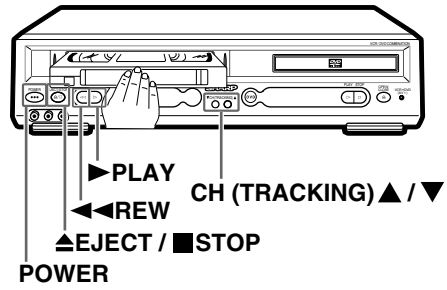
1. Press **POWER**.
2. Move **VCR/DVD CHANGE Switch** on the remote control to **VCR**.
3. Press **TV/VCR** on the remote control to display “VCR” on the VCR Front Panel Display.



Playback

Inserting a Video Cassette

Gently insert the video cassette into the cassette compartment. The Unit turns on automatically and "[cassette]" appears on the VCR Front Panel display. If the cassette is inserted incorrectly, the loading system will not function. Do not force the cassette into the Unit. To remove the cassette, press **EJECT** during stop mode.



Playback

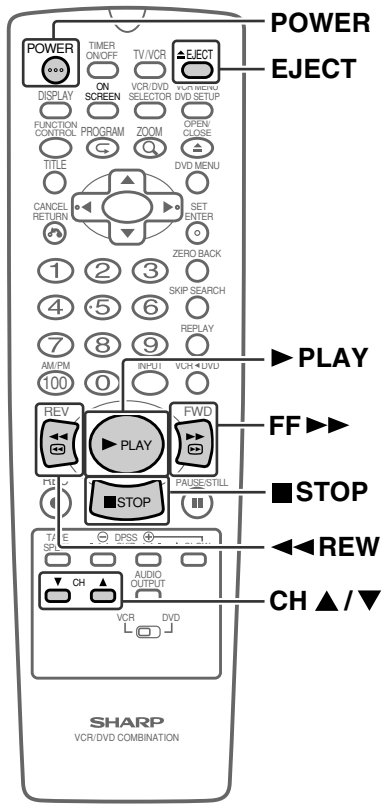
Preparation

- See **Preparing to Use VCR** on page 52.

1 Insert a cassette.

2 Press ►**PLAY**.
- The automatic tracking control system engages and "PLAY" flashes on the TV screen for a few seconds. See Tracking Control System.

3 Press ■**STOP** to stop play.
- If the tape reaches its end, the VCR will automatically rewind the tape to the beginning, eject the cassette, and turn off the power.



NOTE

- If noise should remain on the TV screen after tracking adjustment has been completed by the Automatic Tracking Control System, use the manual tracking mode.
- Press **CH (TRACKING)** ▲ / ▼ during playback mode to change to manual tracking mode. Adjust the tracking using **CH (TRACKING)** ▲ / ▼ until the noise is minimized or eliminated (See page 55).
- For tapes recorded in EP on another VCR that still have vertical jitter even after manual adjustment, hold down ►**PLAY** for about 2 seconds. (On screen display may be blurred). Ejecting the tape or turning off the power will return playback to its normal mode.

Notes for S-VHS tape

- Playing back with S-VHS high quality picture is not available.
- Picture noise or distortion may appear on the screen during playback in the SLOW or STILL mode.
- S-VHS recording is not available.

Fast Forward and Rewind

1 When the Unit is in stop mode, press **FF**►► or ◄◄**REW** to fast forward or rewind the cassette. (The picture cannot be viewed in this mode.)

2 Press ■ **STOP** to halt fast forward or rewind.

NOTE

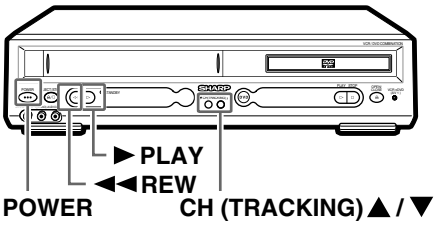
- The FF and REW speeds may be slower for cassette tapes other than T-60, T-90, or T-120.
- After rewinding the T-120 cassette tape for about 60 seconds, you can fast forward the cassette tape.

Video Search

Use the following procedure to quickly find the section you want, while viewing the picture.

1 During playback, press **FF▶▶** for forward video search, or **◀◀REW** for reverse video search.
- There are 2 search speeds in each direction. The VCR switches between them each time the button is pressed.

2 Press **▶PLAY** to resume normal playback.



Slow Motion Playback (only with the remote control)

1 Press **I▸SLOW** during playback.

2 Press **SLOW ⊖/⊕** (to the left of SLOW) to vary the slow motion playback speed between 1/5 and 1/30 of the normal playback speed.
- If noise bars appear on the screen, use **CH (TRACKING) ▲ / ▼**.
- If the picture experiences vertical jitter during the slow mode, set your VCR to the still mode and press **CH (TRACKING) ▲ / ▼** to stabilize the picture. Then press **I▸SLOW** again.

3 Press **▶PLAY** to resume normal playback.

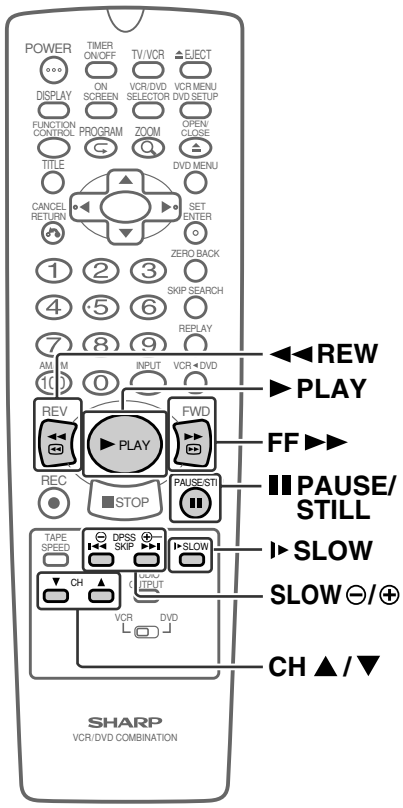
Still Picture and Frame Advance

1 Press **❚❚PAUSE/STILL** during playback. This will freeze the picture on your TV.

2 If the picture vibrates vertically during still mode, use **CH (TRACKING) ▲ / ▼** to adjust for minimum distortion. If noise bars appear on the screen during still mode, set your VCR to the slow mode and press **CH (TRACKING) ▲ / ▼** to make the noise disappear. Then press **❚❚PAUSE/ STILL** again.

3 Press **❚❚PAUSE/STILL** during still mode for frame advance.

4 Press **▶PLAY** again to resume normal playback.



NOTE
- Sound is muted during still picture, video search, frame advance, and variable slow motion.
- The picture quality in still picture, video search, frame advance, and variable slow motion is best with tapes recorded in SP or EP mode.

Full Automatic Playback

The Full Automatic Playback lets you enjoy playback with ease. When you insert a cassette with the erasure protection tab removed, this Unit automatically turns on the power and plays back the tape. When the tape reaches its end, the Unit automatically rewinds the tape, ejects it and turns off the power.

NOTE
- If the erasure protection hole is covered, press **▶PLAY** after the power turns on automatically.

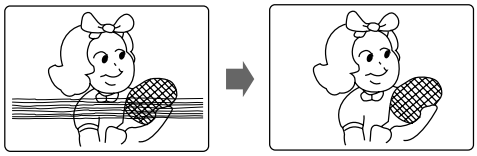
Tracking Control System

Automatic

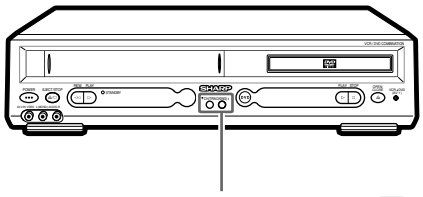
This function automatically adjusts the tracking to match the recorded tape. Auto tracking engages in the following cases:

- When you insert the cassette and begin playback.
- When you press **CH (TRACKING) ▲ / ▼** on the Unit at the same time.
- When the VCR has been playing back an unrecorded section of tape, and then reaches a recorded tape segment.

When auto tracking engages, “PLAY” on the TV screen flashes for a few seconds.



Poor Tracking **Normal Picture**

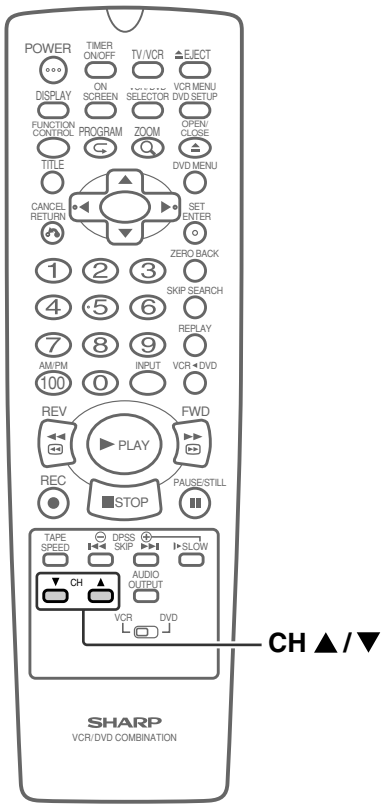


Manual

When a poorly recorded tape is played back or the Unit is near an electrical or magnetic field, auto tracking may not operate normally. In this event, manually adjust the tracking with **CH (TRACKING) ▲ / ▼** to make any noise disappear.

Blue Screen Noise Elimination

Set the BLUE SCREEN mode to ON on the SET UP-selection screen. (See **Mode Selection** on page 31.) This function eliminates monitor noise and mutes sound during playback of unrecorded portions of a tape, and when receiving a non-broadcasting channel. Blue Screen will also appear if the Unit is set to the Auxiliary mode but no video signal is fed to the Unit. (The BLUE SCREEN mode is set to ON at the factory.)



NOTE

- Blue Screen does not function during still picture, variable slow motion and video search.
- Blue Screen may not function properly if the broadcast signal is too strong or too weak.
- Blue Screen does not function during playback of a tape with noise recorded.
- If the antenna signal is weak while recording a TV program, or if the input signal is weak while tape dubbing, the monitor screen may turn blue since the unit may not recognize whether or not a proper signal is being received. In this event, set the BLUE SCREEN mode to OFF.

Automatic Head Cleaning System

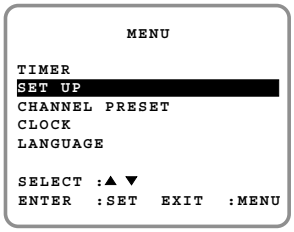
When the tape is inserted, or ejected, this system automatically cleans the drum and heads with a special roller before recording or playback begins, protecting the heads and drum from dirt and preserving beautiful sound and picture quality.

Audio Output Mode

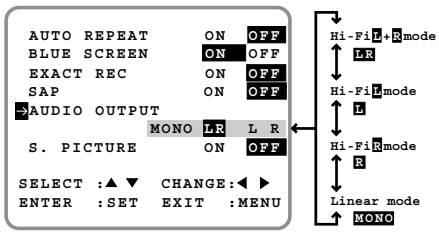
Your Unit has 3 channels for audio recording (2 on the Hi-Fi track and 1 on the linear track). You can select the audio output channels in playback mode on the SET UP-selection screen.

1 Press **VCR MENU** to display the menu screen.

2 Select “SET UP” with ▲ / ▼ and then press **SET**.



3 Select “AUDIO OUTPUT” with ▲ / ▼. Then set it with ◀ / ▶.



- The following shows which audio channels will be heard when a stereo Hi-Fi video cassette is played back while a stereo system is properly connected to the Unit.

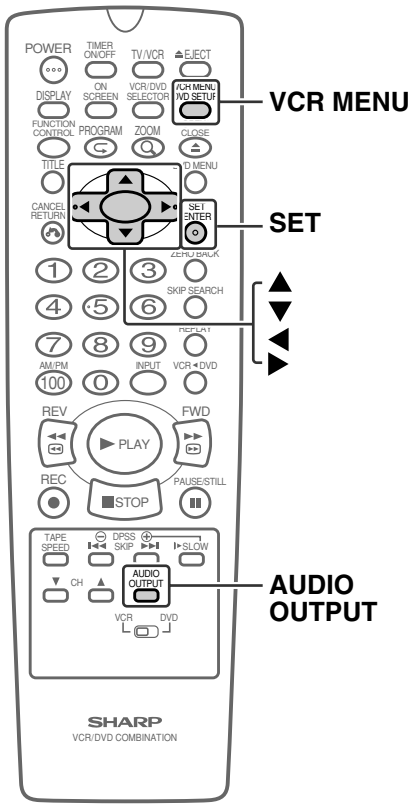
Hi-Fi L + R mode: LR
Normally, select Hi-Fi L + R mode on the SET UP–selection screen: both the left (L) and right (R) audio channels will be taken from the Hi-Fi audio track.
Normally you will not have to change to another mode.
(See **MTS (Multi-channel TV Sound) Broadcasts Recording** on page 64.)

Hi-Fi L mode: L
The left channel of the Hi-Fi audio track will be played back through both speakers.

Hi-Fi R mode: R
The right channel of the Hi-Fi audio track will be played back through both speakers.

Linear mode: MONO
The audio signal recorded on the linear audio track will be played back through both speakers.

4 Press **SET** to enter.
- The screen return to normal.



NOTE

- Each time **AUDIO OUTPUT** is pressed, the audio channels changes as the following sequence:

  → L R ⟶ L ⟶ R ⟶ MONO →

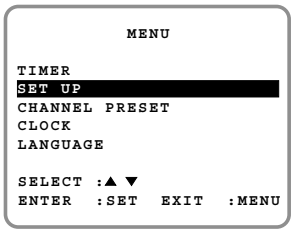
- When video cassettes recorded on a non-Hi-Fi VCR are played back or the Hi-Fi audio output level is poor, the audio signal recorded on the linear audio track will automatically be played back regardless of the audio output mode.

Sharp Super Picture

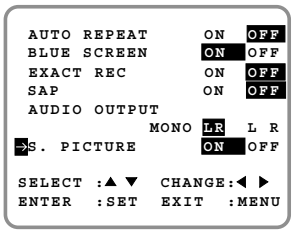
This function creates clearer picture quality only during playback.

1 Press **VCR MENU** to display the menu screen.

2 Select “SET UP” with ▲ / ▼ and then press **SET**.



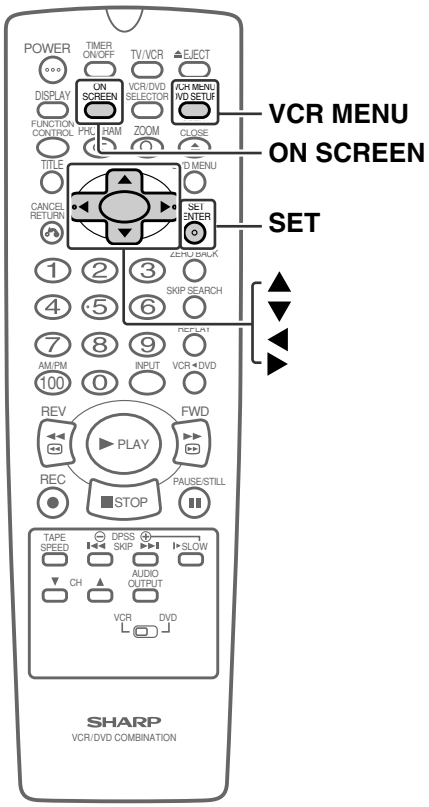
3 Select “S. PICTURE” with ▲ / ▼. Then set it to “ON” or “OFF” with ◀ / ▶.



ON:
Normally leave the mode set to ON. This high picture quality function will create a clearer image during playback.

OFF:
Set to OFF when playing back a tape on the VCR while editing or when strong noise appears on the screen.

4 Press **SET** to enter.
- The screen return to normal.



NOTE

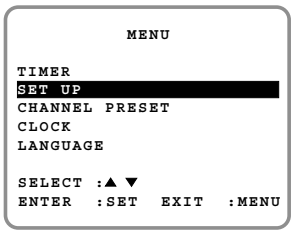
- This function only operates during playback. It will not operate when recording or watching a TV program with the VCR tuner.
- When playing S-VHS tape
  1. Sharp Super Picture is set to off automatically. When finished playback, the setting will return to the previous setting.
  2. You cannot change ON/OFF setting manually.
- The ON/OFF status of the Sharp Super Picture can be checked when **ON SCREEN** is pressed to display OSD.
- When the Unit power is turned off, the Sharp Super Picture setting is retained in memory.
- If power is interrupted for more than 60 seconds (power failure, etc.), the setting will return to ON.

Auto Repeat

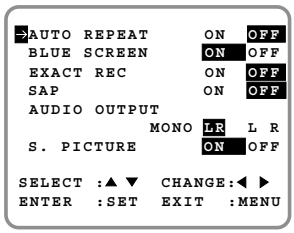
This function replays the specified part.

1 Press **VCR MENU** to display the menu screen.

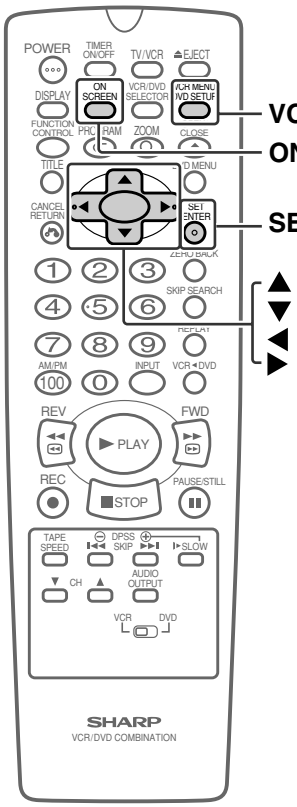
2 Select “SET UP” with ▲ / ▼ and then press **SET**.



3 Select “AUTO REPEAT” mode with ▲ / ▼. Then set the mode to “ON” or “OFF” with ◀ / ▶.



4 When Auto Repeat is set to ON, if the recorded portion has finished and a non-recorded portion has continued for 15 seconds, the tape will automatically stop, rewind to the beginning and repeat playback.



NOTE

- The ON/OFF status of the Recorded Section Auto Repeat can be checked when **ON SCREEN** is pressed to display OSD. (The “⟲” mark lights when the Recorded Section Auto Repeat is on.)
- If the Recorded Section Auto Repeat is on and the tape is rewound to the beginning with rewind or reverse video search, the tape will automatically start playback.

Auto Zero Back

This function automatically forwards or rewinds the cassette to the "0:00.00" point. Use this function to return to a recording start point.

1 Reset the counter to "0:00.00" with **CANCEL** before recording.

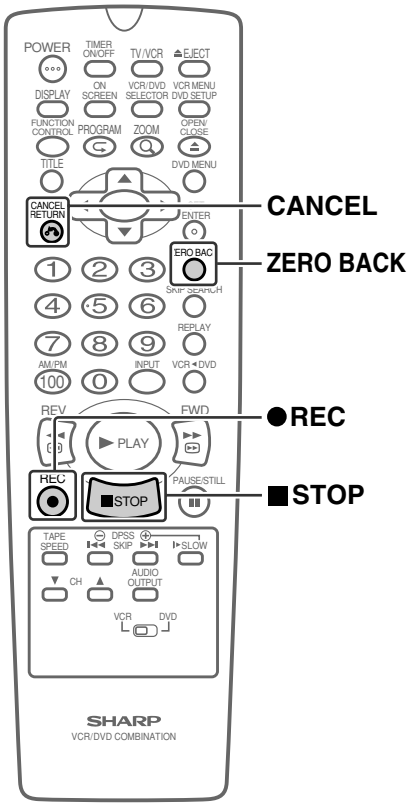
2 Press ●**REC** to start recording.

3 After recording the desired program, press ■**STOP** to stop recording.

4 Press **ZERO BACK** to return to the recording start point (0:00.00).

NOTE

- During auto zero back, if the VCR rewinds (or fast forwards) the tape all the way without finding the "0:00.00" point, it will stop at the beginning (or end) of the tape.
- The counter start point "0:00.00" may differ slightly from the starting point on the tape.
- This function is not operable during recording, recording pause, simple recording timer or timer recording.

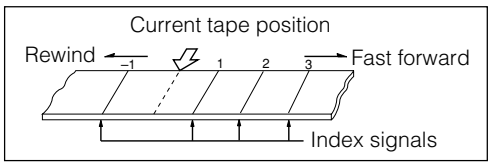


DPSS (Digital Program Search System)

You can quickly locate a desired section of a cassette with this feature.

Index Signal

An index signal is automatically recorded on a cassette at the start of ordinary recording, simple recording timer and timer recording.



1 Insert a cassette containing index signals.

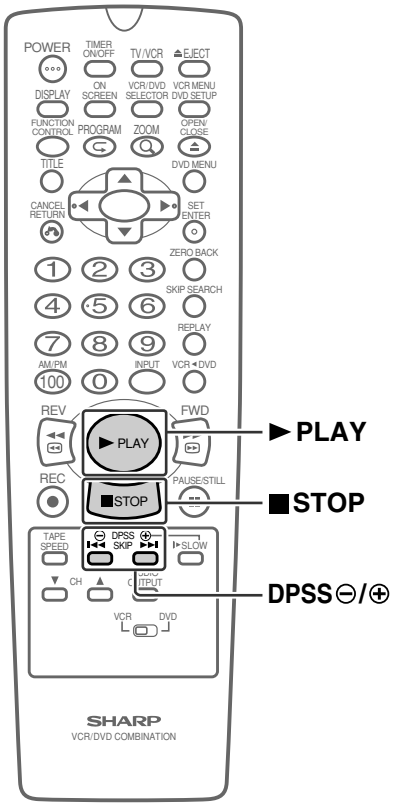
2 Select the index number of the desired program with **DPSS⊖/⊕**.

- With each press of the button, the number changes. One of 19 programs can be selected in either direction (one of up to 38 programs).
  (Example: DPSS 3=Third program after the current one.)

On the TV screen

3 Search starts immediately when you press **DPSS⊖/⊕**. (When a signal is located, the displayed number decreases.)

4 When the selected section is found, playback begins automatically.



NOTE

- DPSS may not work if recordings are too close (within 3 minutes of each other).
- Press ►**PLAY** or ■**STOP** to cancel DPSS.
- If the tape reaches its end or beginning before locating the desired point, DPSS is cancelled.
- DPSS may not function for damaged or worn tapes.
- DPSS cannot be used with tapes that contain no index signals.
- The starting point of a program may vary slightly.
- DPSS does not operate during the slow, record, timer stand-by, and timer recording modes, or when there is no cassette loaded.
- Index signals for DPSS cannot be entered manually.

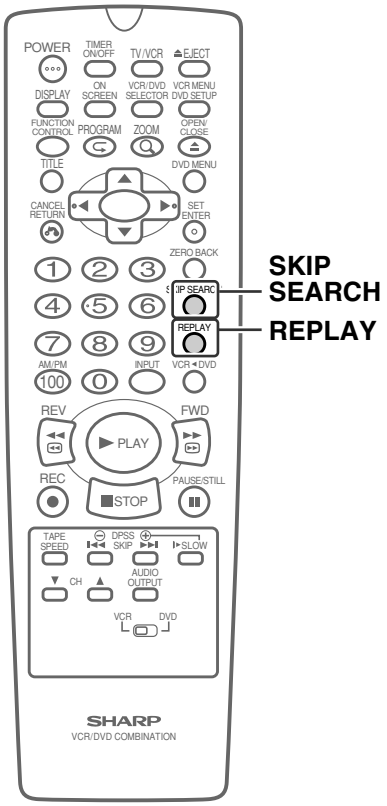
Skip Search/Instant Replay

Skip Search

With this feature, you can set a forward video search time to approx. 30, 60, 90 or 120 seconds of recorded material. After searching, normal playback will resume automatically.

- Press **SKIP SEARCH** during playback.
  (Example: during commercials)

Number of Times Pressed	Video Search Time
1 Time	Approx. 30 sec.
2 Times	Approx. 60 sec.
3 Times	Approx. 90 sec.
4 Times	Approx. 120 sec.



Instant Replay

With this feature, you can set a reverse video search time to approx. 20, 40, 60, or 80 seconds of recorded material. After searching, normal playback will resume automatically.

- Press **REPLAY** during playback.

Number of Times Pressed	Video Search Time
1 Time	Approx. 20 sec.
2 Times	Approx. 40 sec.
3 Times	Approx. 60 sec.
4 Times	Approx. 80 sec.

TV Program Recording

Preparations

- See **Preparing to Use VCR** on page 52.
- If necessary, set “SAP” on the menu screen. (See **MTS (Multi-channel TV Sound) Broadcasts Recordings** on page 64.)

Without a Cable Box

1. Insert a cassette, with the erasure protection tab covered. (See **Cassette Erase Protection** on next page.)
2. Press **TAPE SPEED** to set the recording speed (SP or EP). (See **Recording Speeds** on next page.)
   SP or EP will appear in the VCR Front Panel display.
3. Select the desired channel with **CH** ▲ / ▼ or the number buttons on the remote control.
4. Press ●**REC**. (If the erasure protection tab has been removed, a cassette will be ejected.)
5. To stop recording, press ■**STOP**.

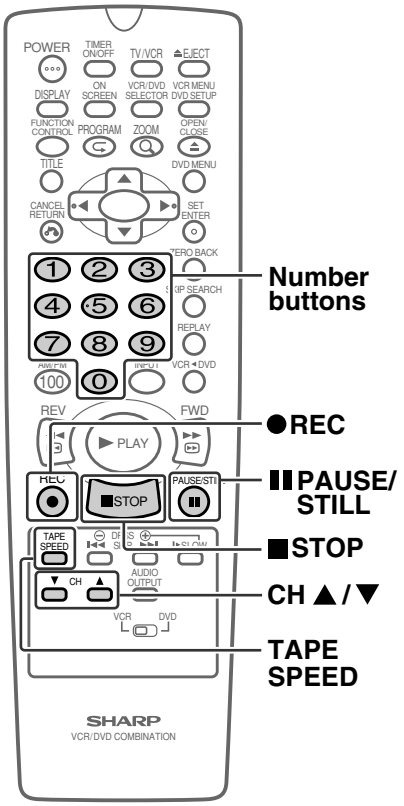
- To pause recording during the REC mode, press ❚❚**PAUSE/STILL** on the remote control. To resume recording, press ❚❚**PAUSE/STILL** or ●**REC**. (Pause disengages automatically after about 5 minutes to avoid damage to the tape and the Unit, and stop mode is engaged.)

With a Cable Box

1. Insert a cassette, with the erasure protection tab covered. (See **Cassette Erase Protection** on next page.)
2. Press **TAPE SPEED** to set the recording speed (SP or EP). (See **Recording Speeds** on next page.)
   SP or EP will appear in the VCR Front Panel display.
3. Set the TV and VCR channels to output CH of cable box.
4. Set the cable box to the desired channel to record.
5. Press ●**REC**. (If the erasure protection tab has been removed, a cassette will be ejected.)
6. To stop recording, press ■**STOP**.

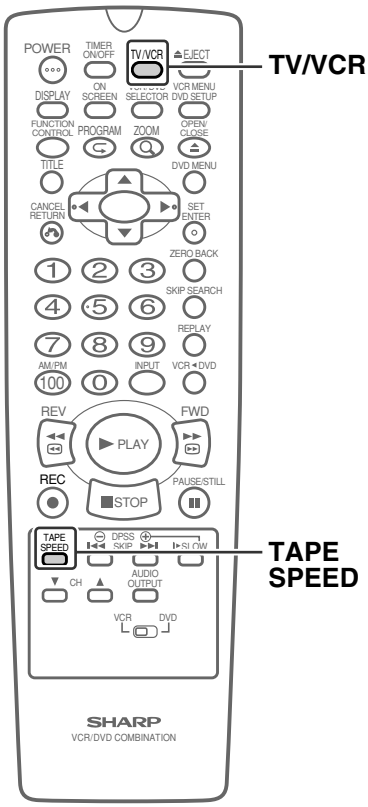
NOTE

- You will be unable to watch a scrambled channel while recording.
- It is not necessary to set the clock to use this recording operation.
- “PAUSE” will flash on the TV screen if ❚❚**PAUSE/STILL** is pressed in stop mode. Press ■**STOP** to disengage the pause mode or press ●**REC** to enter the record standby mode.
- The Unit can record a TV program even with the TV turned off.



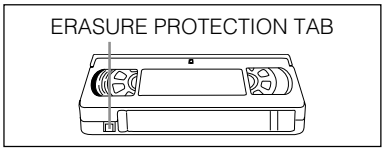
To Watch Another TV Program While Recording

While recording, press **TV/VCR** to select “TV” (the “VCR” indicator will disappear), then select the program you wish to view using the TV tuner.
At the end of the tape, your Unit will automatically stop recording, rewind the tape, eject it and turn off the power.



Cassette Erase Protection

A VHS cassette has a removable tab to prevent accidental erasure of recorded material. Removing the tab prevents recording. To record on a video cassette with the tab removed, place adhesive tape over the tab opening.



Recording Speeds

This Unit lets you select a recording speed (SP or EP). SP provides a better picture, although the recording time is shorter. Select the tape speed that best suits your needs.
Press **TAPE SPEED** to select “SP” or “EP” before recording.

MODE / CASSETTE	SP (Standard Play)	EP (Extended Play)
T-60	1 hr.	3 hrs.
T-120	2 hrs.	6 hrs.
T-160	2 hrs. & 40 min.	8 hrs.

NOTE

- This Unit can play back tapes recorded in LP (Long Play) mode.

Recording Hi-Fi Stereo Sound

Your Unit records AUDIO signals on two types of audio tracks.

Hi-Fi:
Using specialized rotary heads, audio signals are recorded on the video track in FM format.
Multi-sound broadcasts (Stereo or SAP [Separate Audio Program]) are recorded on two channels.

Linear:
All audio signals are recorded in mono on the linear audio track.

NOTE

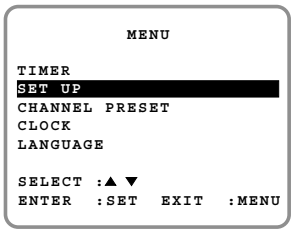
- Video cassettes recorded on a non–Hi-Fi VCR can also be played back. However, if the audio signals are recorded on two linear channels, stereo programs will be played back in monaural and SAP (Separate Audio Program) will be played back with both the MAIN and SAP audio mixed together.
- Video cassettes recorded on this Unit can be played back on a non-Hi-Fi VCR. However, only the linear track will be played back.

MTS (Multi-channel TV Sound) Broadcasts Recording

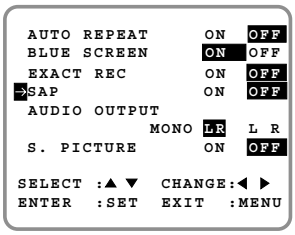
Your Unit can record stereo or SAP (Separate Audio Program) broadcasts, where available.
If the broadcast is in stereo, the Unit automatically records the stereo sound in dynamic Hi-Fi. If the broadcast is in SAP, you can record both the MAIN and the SAP sound by using the menu screen to set the SAP mode to ON. If the broadcast is in stereo/SAP, you can record either the SAP sound by using the menu screen to set the SAP mode to ON, or stereo sound by setting the SAP mode to OFF.

1 Press **VCR MENU** to display the menu screen.

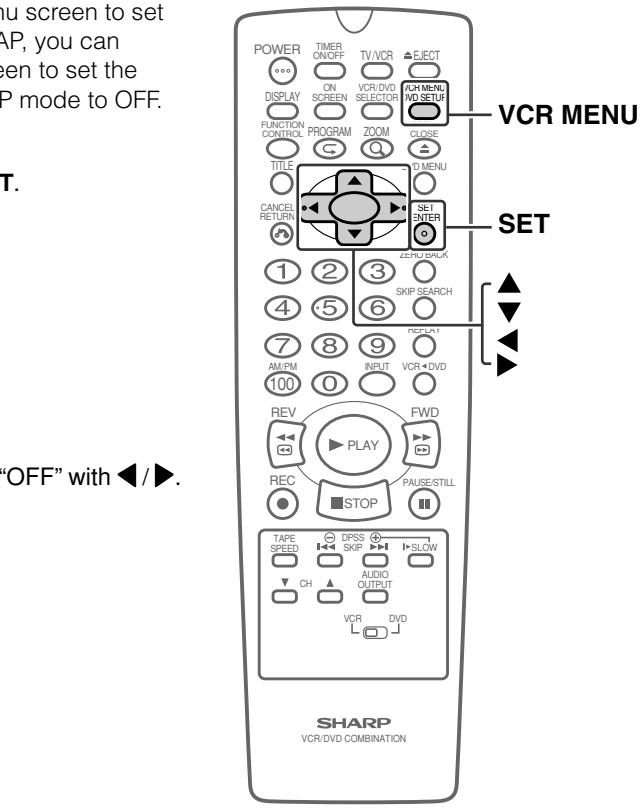
2 Select "SET UP" with ▲ / ▼ and then press **SET**.



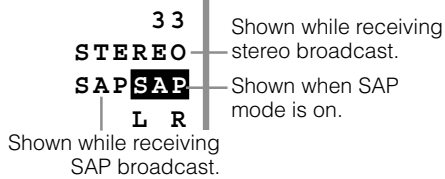
3 Select "SAP" with ▲ / ▼. Then set it to "ON" or "OFF" with ◀ / ▶.



4 Press **SET** to enter.
- The screen return to normal.



On the TV screen



Monitor Output When Receiving a SAP Broadcast

When receiving a SAP broadcast, if the SAP position is set to ON, change the audio output mode to select Monitor Output (MAIN or SAP) with the menu screen. (See **MTS (Multi-channel TV Sound) Broadcasts Recording** above.)

When enjoying a TV program with MAIN sound:
Select L on the SET UP–selection screen.
When enjoying a TV program with SAP sound:
Select R or MONO on the SET UP–selection screen.
(See **Audio Output Mode** on page 56.)

MTS/SAP RECORDING

* The monitor output listed in the table shows that the audio output mode is in the Hi-Fi L + R mode.

Broadcast Received	SAP Mode Position	*Monitor Output		Recording		
		L-Speaker	R-Speaker	Hi-Fi L-CH	Hi-Fi R-CH	Linear Track
Stereo	OFF	L	R	L	R	L + R
	ON	L	R	L	R	L + R
SAP	OFF	MAIN	MAIN	MAIN	MAIN	MAIN
	ON	MAIN	SAP	MAIN	SAP	SAP
Stereo/SAP	OFF	L	R	L	R	L + R
	ON	L + R	SAP	L + R	SAP	SAP

Simple Recording Timer

The Simple Recording Timer (SRT) enables you to set the recording stop time. The SRT can be set on the TV screen by using the remote control.

> The SRT cannot be set if the clock has not been set. Make sure the clock is set before setting the SRT.

Preparations

- See **Preparing to Use VCR** on page 52.
- Insert a cassette with the erasure protection tab opening covered.
- If necessary, set “SAP” on the menu screen. (See **MTS (Multi-channel TV Sound) Broadcasts Recordings** on page 64.)

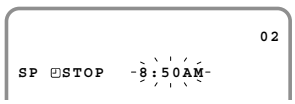
Example: Recording a TV program in the SP mode. The program is on Channel 2, ending at 9:50 AM. The present time is 8:43 AM.

1 Select the desired channel with the number buttons or **CH ▲ / ▼**.
(Example) Channel → 02

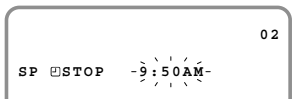
2 Set the recording speed (SP or EP) with **TAPE SPEED**.
(Example) SP

Recording Speed

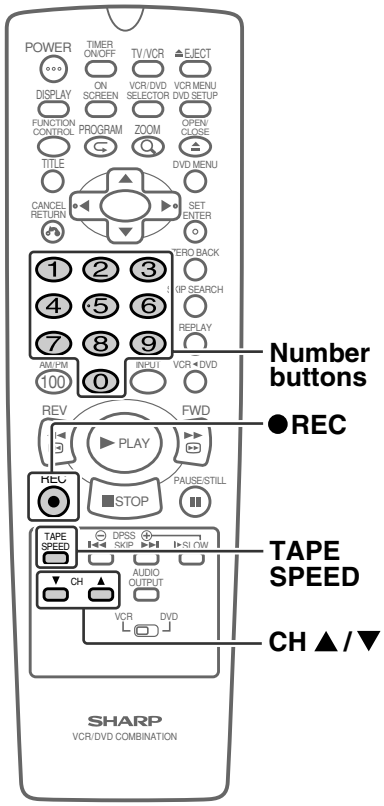
3 Press **●REC** to enter the recording mode.
Then, press **●REC** again to enter the simple recording timer mode. The recording stop time is displayed.
(Example) 8:50 AM



4 Each press of **●REC** increases the stop time by 10 minutes.
(Example) 9:50 AM



5 When the stop time comes, recording is finished, and the power turns off.



Changing the Contents of the Simple Recording Timer

1 Press ●**REC**. The stop time flashes on the TV screen.

2 Change the stop time as desired using ●**REC.**

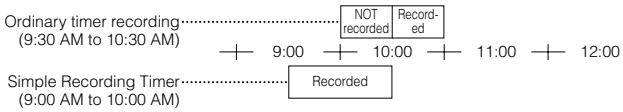
Cancelling the Simple Recording Timer

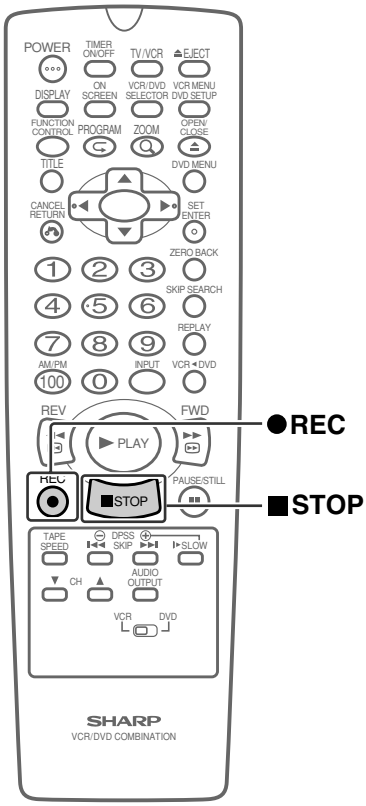
1 Press ■**STOP**.

NOTE

- **The Simple Recording Timer has priority over other recordings.**
- Ordinary timer programs will not be recorded when portions of the time setting of the simple recording timer and of the time setting of the ordinary timer recording overlap.

Example:



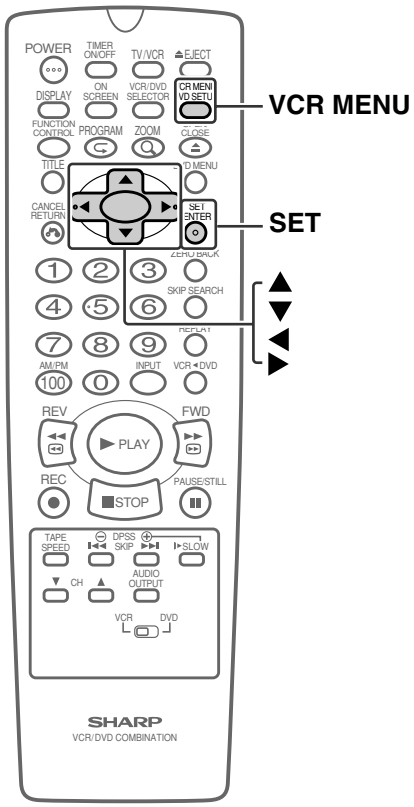


Timer Recording

Preparations

- See **Preparing to Use VCR** on page 52.
- Check that the clock is displaying the correct time.
- Insert a cassette with the erasure protection tab opening covered.
- If necessary, set “SAP” on the menu screen. (See **MTS (Multi-channel TV Sound) Broadcasts Recording** on page 64.)

Example: Recording a TV program in the SP mode: the TV program is on channel 7 starting at 9:05 PM and stopping at 10:35 PM on August 10th. The present time is 6:35 PM on August 10th.



1 Press **VCR MENU** to display the menu screen.

2 Select “TIMER” with ▲ / ▼.

```
          MENU

TIMER
SET UP
CHANNEL PRESET
CLOCK
LANGUAGE

SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

3 Press **SET**.

```
                          1/2
 DATE   CH   START STOP
 -/--  ---   --:--  --:----
 -/--  ---   --:--  --:----
 -/--  ---   --:--  --:----
 -/--  ---   --:--  --:----
 ▼ 2/2
CLEAR  :CANCEL
SELECT :◀ ▶
ENTER  :SET  EXIT  :MENU
```

4 Select the desired month/day (DATE) with ▲ / ▼ and then press ▶. The cursor will move to the next column.
(Example) August 10th

- If you want to record every day or week at the same time, hold ▼ when you select the date.

When pressing:	The recording date changes in this sequence:
▼	8/10→MO-FR→MO-SA→DAILY→SAT··SUN→8/9→8/8··· (next year)
▲	8/10 ⟶ 8/11 ⟶ 8/12·····8/8 →8/9 →SUN·····SAT····· (present) (tomorrow) (next year)

```
                          1/2
 DATE   CH   START STOP
 8/10  ---   --:--  --:--SP
 -/--  ---   --:--  --:----
 -/--  ---   --:--  --:----
 -/--  ---   --:--  --:----


SELECT :◀ ▶  CHANGE:▲ ▼
ENTER  :SET  EXIT  :MENU
```

5 Select the desired channel with ▲ / ▼ and then press ▶.
(Example) Channel 07

```
                          1/2
DATE   CH   START STOP
8/10   07   --:-- --:--SP
-/--  ---   --:-- --:----
```

6 Set the recording start time (hour digits and minute digits) with ▲ / ▼ and then press ▶.
(Example) 9:05 PM

Press **AM/PM** to select "AM" or "PM".

```
                          1/2
DATE   CH   START STOP
8/10   07    9:05P--:--SP
-/--  ---   --:-- --:----
```

7 Set the recording stop time with ▲ / ▼ and then press ▶.
(Example) 10:35 PM

It is not necessary to select AM or PM.

```
                          1/2
DATE   CH   START STOP
8/10   07    9:05P10:35SP
-/--  ---   --:-- --:----
```

8 Select the tape speed with ▲ / ▼.
(Example) SP

```
                          1/2
DATE   CH   START STOP
8/10   07    9:05P10:35SP
-/--  ---   --:-- --:----
```

9 Press **SET**.
- To program the additional timer settings, press **SET** and repeat steps **2**–**9**.

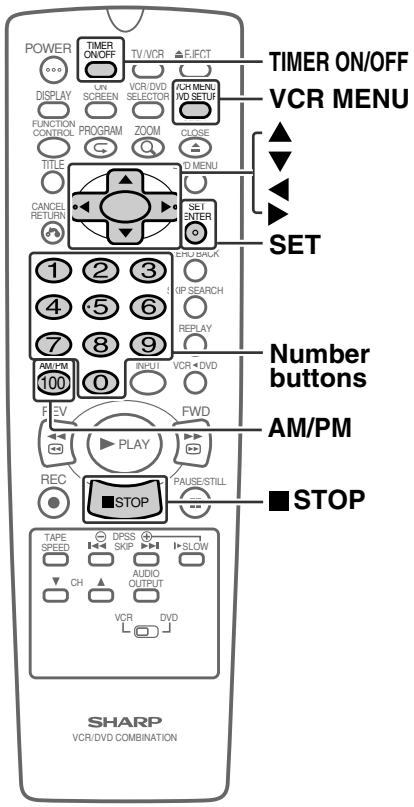
```
                          1/2
DATE   CH   START STOP
8/10   07    9:05P10:35SP
-/--  ---   --:-- --:----
-/--  ---   --:-- --:----
```

10 Press **VCR MENU** to finish settings.
The display shown below appears on the screen for 5 seconds, after which the normal screen returns.

```
TIMER ON/OFF BUTTON
FOR TIMER RECORDING.
```

11 Press **TIMER ON/OFF** to enter the timer standby mode. Be sure that "TIMER" is lit up on the VCR Front Panel display.

TIMER



NOTE

- If the power is interrupted for more than 60 seconds (power failure, etc.) during timer recording, the Auto Clock Setting will reset the time after the power is returned (the timer indicator on the VCR Front Panel display will flash.) but the timer settings will be cancelled.
- Number buttons can be used instead of ▲ / ▼ to set the data.
- If the cassette ends before recording all the programs, the VCR will stop, eject the cassette, and turn the power off automatically.
- In Step **9**, if **TIMER ON/OFF** is pressed with no cassette inserted, the TIMER indicator flashes for 5 seconds indicating that timer recording is not possible.
- In Step **9**, if the inserted cassette is without the erasure protection tab, TIMER indicator flashes and the cassette is ejected.
- To stop timer recording, press **■STOP**.
- If a button is not pressed within 3 minutes during the setting procedure, the screen will return to the normal screen.
- There are two timer setting screens (1/2, 2/2).

Confirming Timer Programs

You can see on the Timer setting screen a list of all timer programs that are already set.

Preparation

- See **Preparing to Use VCR** on page 52.

1 Press **VCR MENU** to display the menu screen.

2 Select “TIMER” with ▲ / ▼ and then press **SET**.

```
MENU

TIMER
SET UP
CHANNEL PRESET
CLOCK
LANGUAGE

SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

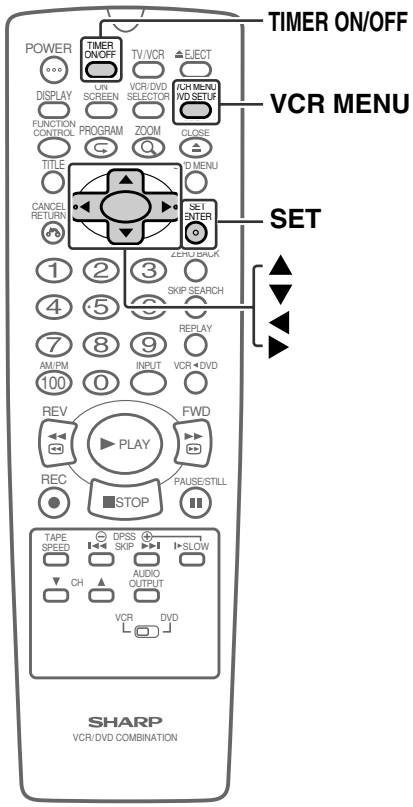
3 If you want to correct the data, select the data to be changed with ▲ / ▼ and then press **SET**. Correct the data as desired using ▲ / ▼ / ◀ / ▶. Then press **SET**.
See 2/2 screen also.

```
                    1/2
 DATE  CH  START STOP
 8/01 125  12:00A12:30EP
 8/10  07   9:05P10:35SP
DAILY  88  10:03P10:30EP
 -/--  ---  --:--  --:----
 ▼ 2/2
CLEAR  :CANCEL
SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

4 Pressing **VCR MENU** will clear the screen.

- The display shown below appears for 5 seconds, after which the normal screen returns.
- After checking or correcting the program contents, press **TIMER ON/OFF** to enter the Timer Standby mode.

```
TIMER ON/OFF BUTTON
FOR TIMER RECORDING.
```



Cancelling Timer Programs

Perform the following procedure to cancel timer programs that have already been set.

Preparation

- See **Preparing to Use VCR** on page 52.

1 Press **VCR MENU** to display the menu screen.

2 Select “TIMER” with ▲ / ▼ and then press **SET**.

```
MENU

TIMER
SET UP
CHANNEL PRESET
CLOCK
LANGUAGE

SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

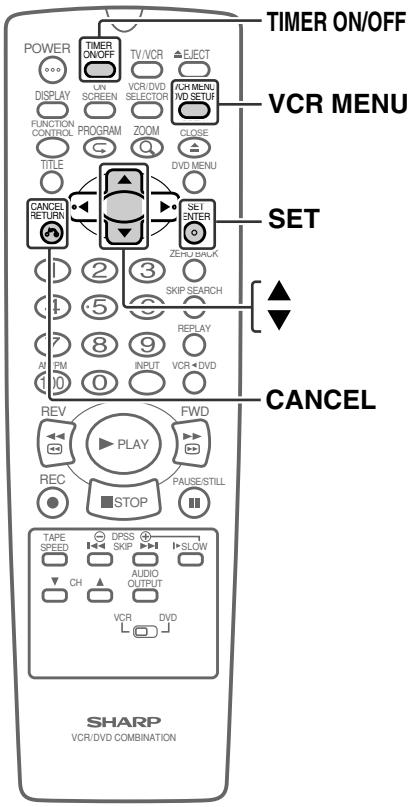
3 Double-check that it is the program you wish to cancel, and press **CANCEL**. It will be cleared on the screen.

```
                          1/2
 DATE  CH  START STOP
 -/--  ---  --:--  --:----
 8/10  07   9:05P10:35SP
DAILY  88  10:03P10:30EP
 -/--  ---  --:--  --:----
 ▼ 2/2
CLEAR  :CANCEL
SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

4 Pressing **VCR MENU** will clear the screen.
The display shown below appears for 5 seconds, after which the normal screen returns.

- If there are still some programs set, press **TIMER ON/OFF** to enter the Timer Standby mode.
- If you press **VCR MENU** when all of the timer programs are cancelled, the screen will return to normal.

```
TIMER ON/OFF BUTTON
FOR TIMER RECORDING.
```

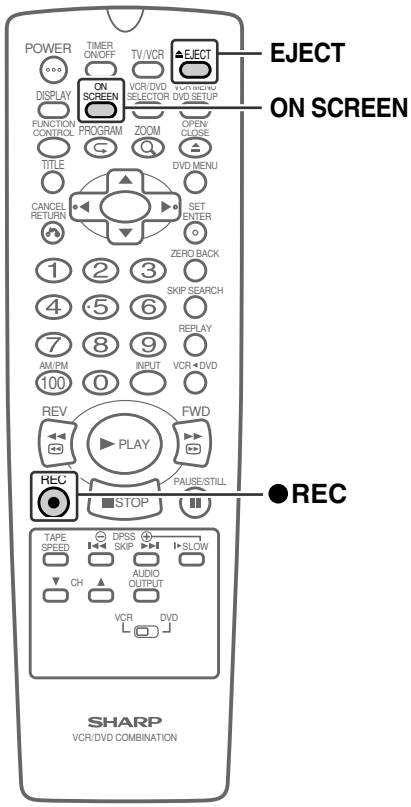


Tape Remaining

With this feature, you can display the remaining amount of tape on the TV screen, during Recording or Playback a tape.

1 Insert a cassette.

2 Press **ON SCREEN** until the tape is running. The tape remaining counter will display on the TV screen after few seconds as shown on right.
The tape remaining computation will not be performed, if no tape is inserted to the Unit.



NOTE

- If a cassette with erasure protection tab removed is inserted, the tape remaining will display automatically after few seconds.
- During computation, ●**REC** will not function.
- During recording, if only 5 minutes of tape remain, Tape Remaining will flash.
- When VHS C and S VHS C cassettes are used with a cassette adapter, the indication may not be correct.
- This function may not work properly for video cassettes other than T-30, T-60, T-90 and T-120 or video cassettes other than standard VHS cassettes.
- The tape remaining does not operate when **EJECT** is pressed.
- During Fast Forward (FF) or Rewind (REW), the tape remaining calculation display may be different.
- The indicated length of tape remaining is only an approximate guide.

Exact Rec

When the tape is expected to run out halfway during timer recording (except for the Simple Recording Timer) in the SP (Standard Play) mode, the mode will automatically change to the EP (Extended Play) mode to prevent termination of the recording.

1 Press **VCR MENU** to display the menu screen.

2 Select “SET UP” with ▲ / ▼ and then press **SET**.

```
          MENU

TIMER
SET UP
CHANNEL PRESET
CLOCK
LANGUAGE

SELECT :▲ ▼
ENTER  :SET   EXIT   :MENU
```

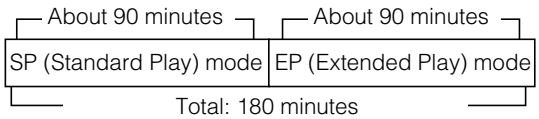
3 Select “EXACT REC” with ▲ / ▼. Then set it to “ON” with ◀ / ▶.

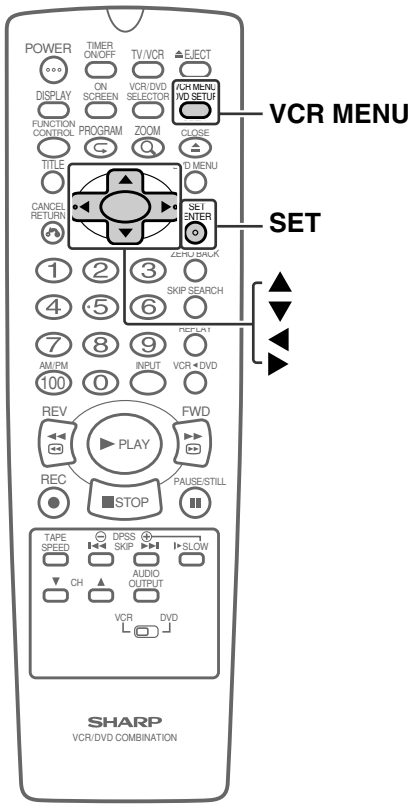
```
 AUTO REPEAT       ON   OFF
 BLUE SCREEN       ON   OFF
→EXACT REC         ON   OFF
 SAP               ON   OFF
 AUDIO OUTPUT
            MONO LR   L R
 S. PICTURE        ON   OFF

SELECT :▲ ▼  CHANGE:◀ ▶
ENTER  :SET   EXIT   :MENU
```

4 Press **SET** to enter.

- The screen return to normal.

(Example) When a 180-minute program is timer-recorded with a 120-minute tape while the automatic select is set to EP mode as shown below.





NOTE

- This function may not properly work for video cassettes other than T-30, T-60, T-90 and T-120.
- This tape may not be completely used up.
- When more than one program is set on the timer, the automatic recording function will work for the length of each timer set program, but not for the total length of all programs.
- When the EP mode is initially used for timer-recording a program, if the tape is not long enough to record the entire length of the program, the program will not be entirely recorded.
- During a tape recorded using Exact Rec is playback, when the tape switch from SP (Standard Play) mode to EP (Extended Play) mode, noise may appear.

Tape Dubbing

Tape Dubbing Connection Instructions

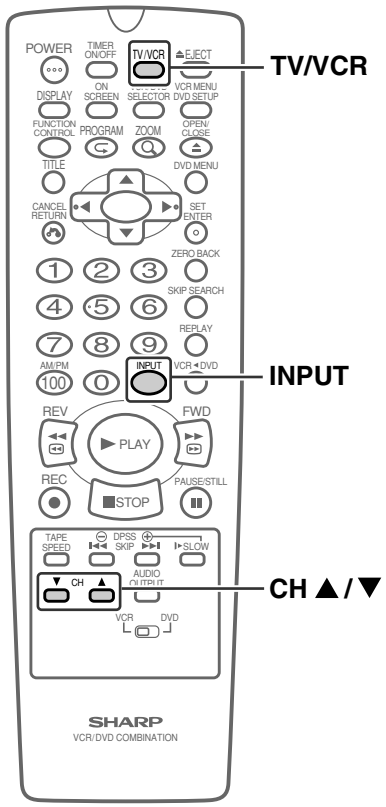
Your Unit can dub (copy) video material from another video device. It can also output video and audio signals for recording on other video or audio equipment. Audio/Video dubbing cannot be done separately.

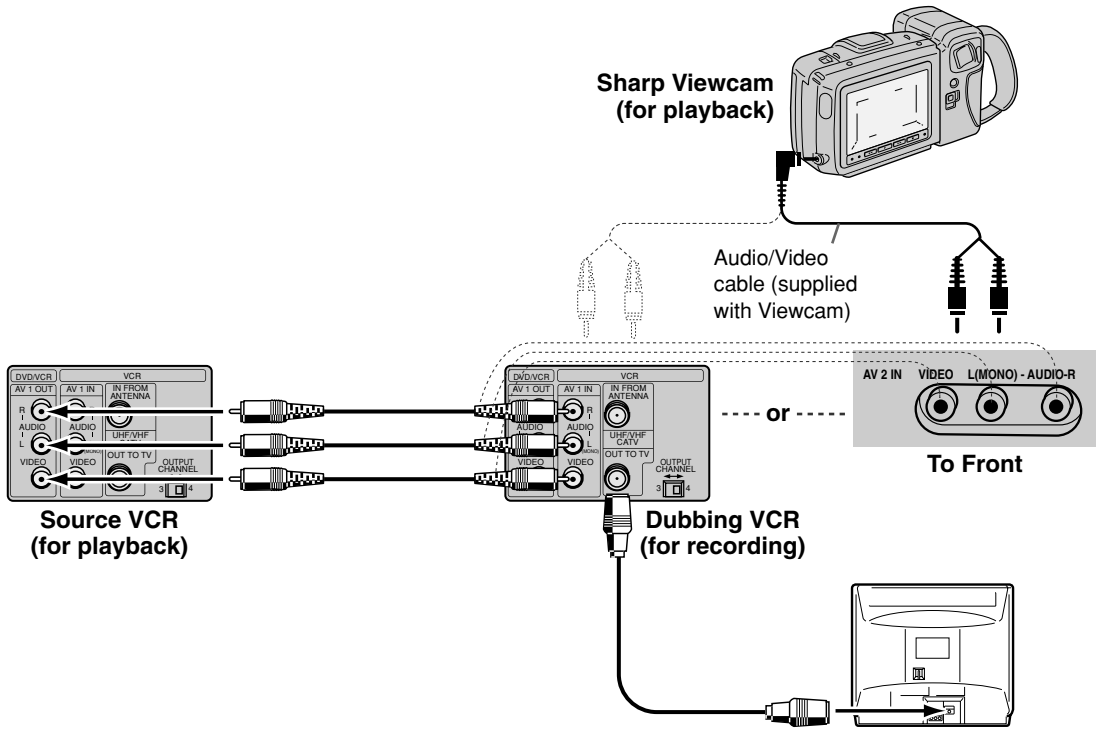
1 Switch your Unit to the auxiliary input by pressing **INPUT**. "**AV 1**" lights up on the VCR Front Panel display. (You can also use **CH ▲ / ▼**.)

2 Begin recording on the dubbing VCR and playback on the source VCR simultaneously.

NOTE

- When using special playback functions (still picture, video search, frame advance, and variable slow motion) during dubbing, a blue screen may appear.
  Set BLUE SCREEN mode on the dubbing VCR (for recording) to OFF. (See **Mode Selection** on page 31.)
- To use the TV as a monitor while dubbing, press **TV/VCR** to "VCR" on the dubbing VCR.
- Use an RCA pin–type connection cable (not supplied with VCR, but supplied with VIEWCAM) to connect source VCR to dubbing VCR.
- Refer to the manual of the VCR connected to this unit when dubbing a tape.
- You can also use the front AV jacks. Select "**AV 2**" (Aux. 2 input) by pressing **INPUT** twice.
- If source VCR is a monaural mode, connect the audio cable to "AUDIO-L" of the dubbing VCR.





Watching a DVD, While Recording or Recording a Video Using the Timer

You can enjoy watching your favorite DVDs while recording or recording a video with the timer (Timer Standby).
Follow these steps in order to watch a DVD while recording or recording a video with the timer.

> **Caution:**
> You cannot watch a DVD, if the Unit is connected only with the antenna cable.

1 Set the VCR to be recorded or recorded with a timer (Timer standby).
- Proceed to step 2, for recording with the timer (Timer standby).
- Proceed to step 3, during video recording.

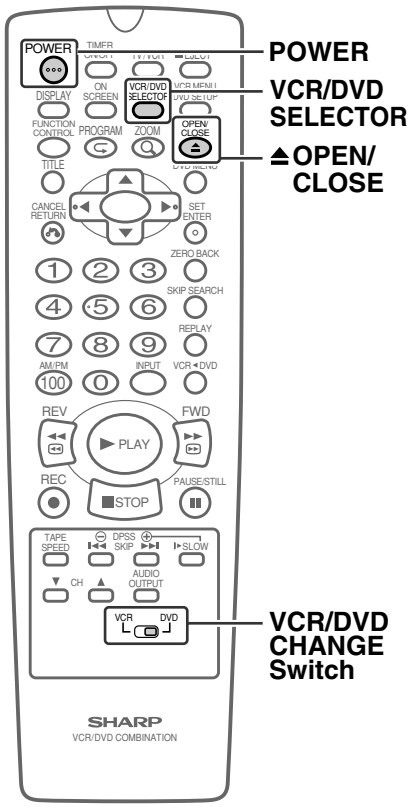
2 Press **POWER**, when recording a VCR with the timer (Timer Standby).

3 Switch the TV channel to the external "VIDEO" or "AV" channel which is connected to the DVD/VCR shared output jacks or DVD output jacks.
- Press the **VCR/DVD SELECTOR** to change the "DVD" mode when connecting to the DVD output jacks.

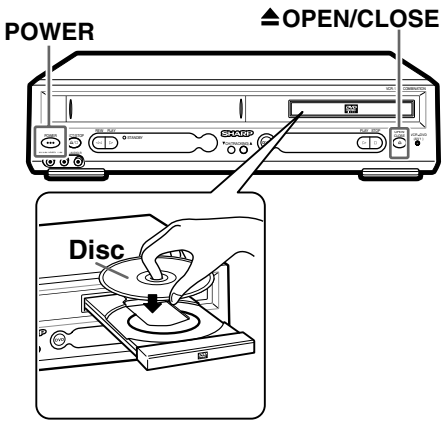
4 Move **VCR/DVD CHANGE Switch** on the remote control to **DVD**.

5 Press **▲OPEN/CLOSE**.

6 Set a disc in the disc tray.
- Place the disc with the label facing upward.

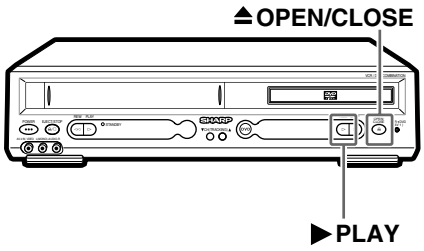


NOTE
- If the disc is damaged or it has been placed the wrong way, "" appear on the screen. Also, if a disc with a different region code is placed in the disc tray, " REGION CODE ERROR" appears on the TV screen and the disc tray slides out.
- On the DVD Front Panel Display "– – – – –" will be displayed.



7 Press ⏏**OPEN/CLOSE**.
The disc tray will close.

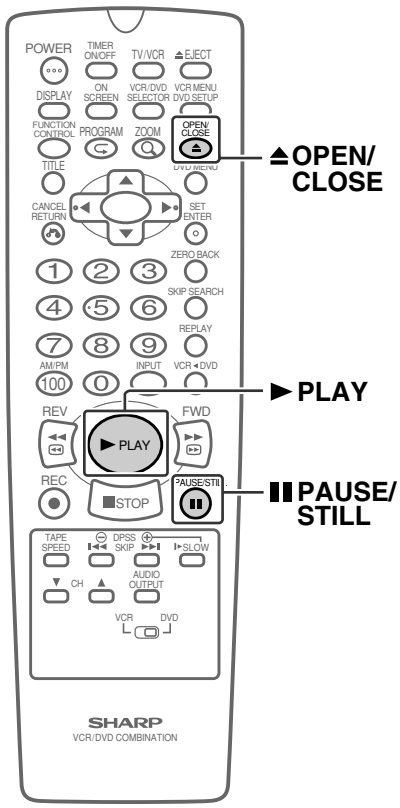
NOTE
- Watch so that your fingers do not get caught when the disc tray closes.



8 Press ▶**PLAY**.

9 Press ❚❚**PAUSE** to stop playback.
- Refer to steps 3 and 4 if you want to watch VCR.

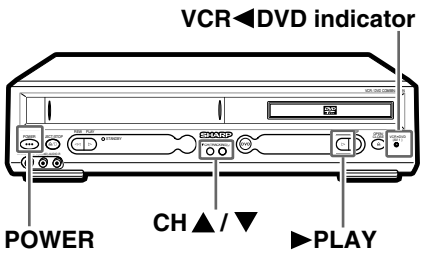
NOTE
- Do not turn the power off while recording. The power to the VCR will also be cut off. (If the power is cut while the Unit is in Timer recording or Timer stand by, the Unit will remain in Timer recording or Timer stand by).



Recording a DVD Disc onto Video Cassette

Use the following procedure to record the images and sounds on a DVD disc onto video cassette.

Recording a DVD disc onto video cassette (Tape Editing mode)



Preparation

TV

- Turn on the TV and switch the external “VIDEO” or “AV” channel.

This Unit

- Press **POWER**.
- Move the **VCR/DVD CHANGE switch** on the remote control to **VCR**.

1 Select channel “**AV 1**” by pressing **CH ▲/▼**

2 Press **VCR ◀ DVD**.
- The VCR ◀ DVD indicator lights up.

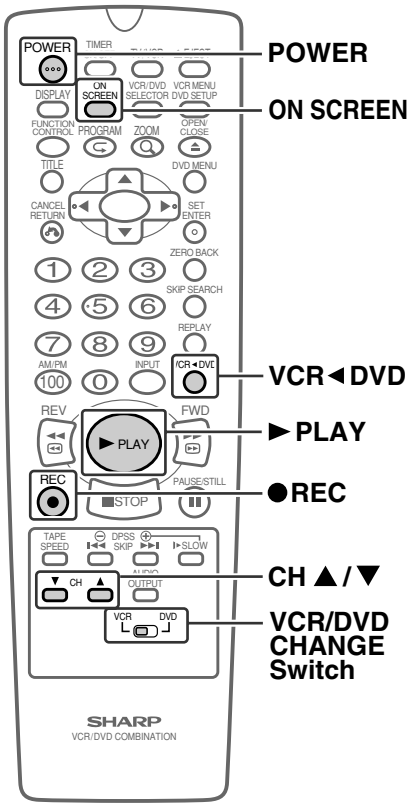
3 Insert both the DVD disc and the video cassette for recording.

4 Move **VCR/DVD CHANGE Switch** on the remote control to **DVD**.

5 Press **ON SCREEN** to turn off the DVD on screen display (See page 38).

6 Press **▶PLAY**.
- The disc start playback.

7 Press **●REC**
- The images on the DVD disc are recorded onto the VCR cassette.



NOTE

- The following are not signs of trouble
  ① The brightness of images from regular DVD disc playback and from discs played in Tape Editing mode might vary.
  ② The discs playing time and the Real time counter slightly vary when recording.
- While in the Tape Editing mode it is not possible to adjust timer settings to use Exact Rec function.
- The DVD/VCR output jacks become VCR fixed.
- The following operations cancel the DVD/VCR output and return to the regular external input.
  ① Programming the timer using “**AV 1**”.
  ② Setting the recording ending time during Pause.
  ③ Turning **POWER** on or off after entering the Tape Editing mode.
- Copy protected DVD discs cannot be recorded(The image will be distorted, when the REC is pressed).
- If the DVD on screen display is “ON” while recording, the display will also be recorded.

The recordings, which you make from TV/radio broadcasts or audio sources (such as records) are for your own private use, and cannot be used without prior permission or consent of the author.

Watching the DVD

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Preparing to Use DVD

The following steps are necessary to display the DVD screen on the TV.

When connecting the unit and the TV using the DVD output jack

TV

Turn on the TV and switch the TV channel to the external input "VIDEO" or "AV" channel connected to DVD output jack.

This Unit

1 Press **POWER**.
- The start up screen is displayed on the TV screen.

2 Move **VCR/DVD CHANGE Switch** on the remote control to **DVD**.

When connecting the unit and the TV using only the DVD/VCR shared output jack

TV

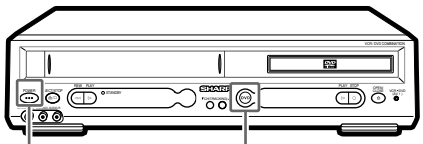
Turn on the TV and switch the TV channel to the external input "VIDEO" or "AV" channel connected to DVD/VCR shared output jack.

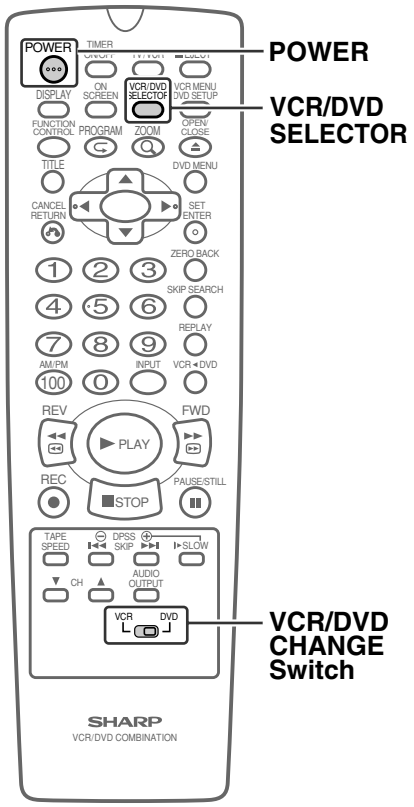
This Unit

1 Press **POWER**.

2 Move **VCR/DVD CHANGE Switch** on the remote control to **DVD**.

3 Press **VCR/DVD SELECTOR** to enter the **DVD** mode.
- The DVD Output indicator will light up and the start up screen will be displayed on the TV screen.





Playback

Preparation

- See **Preparing to Use DVD** on page 78.

DVD C D

- The icons below are used in this Operation Manual:
  DVD ..... Indicates the functions that can be performed for DVDs.
  C D ..... Indicates the functions that can be performed for AUDIO CDs.

Basic Play

1 Press **POWER**.

2 Press **▲OPEN/CLOSE** to open the disc tray.

3 Place a disc onto the tray.

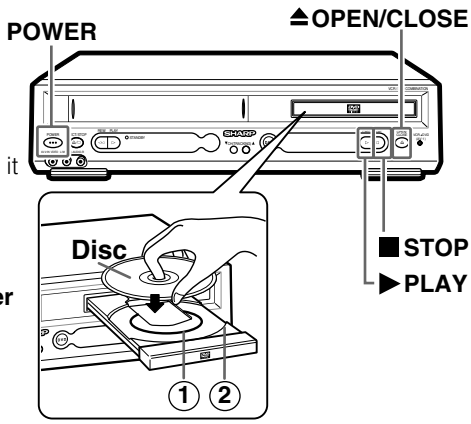
- Hold the disc without touching either of its surfaces, position it with the printed title side facing up, align it with the guides, and place it in its proper position.
  ① 8 cm (3") disc ② 12 cm (5") disc
- **Do not stack discs in the tray. This can damage the player and the discs.**

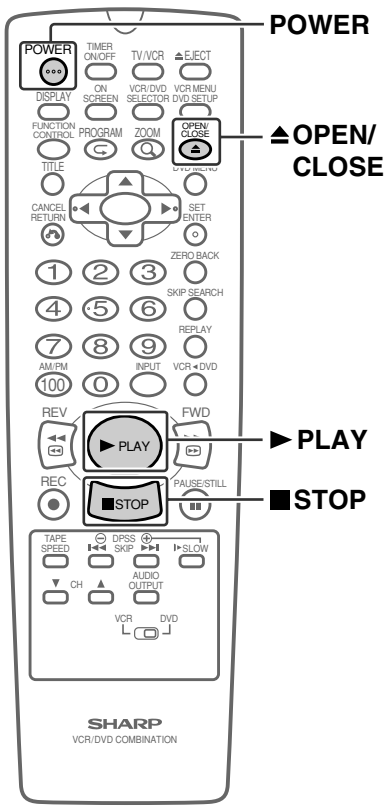
4 Press **▲ OPEN/CLOSE** to close the disc tray.

5 Press **▶PLAY**.

- Playback image appears on the screen. (No image is shown for audio CDs.)

6 Press **■STOP** to stop playback.





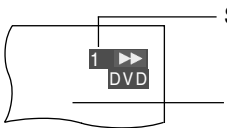
NOTE

- If the disc is loaded upside down or is damaged, "– – – – –" appears on the DVD Front Panel display and the disc tray slides out.
- If you attempt to play a DVD disc with the wrong region code, "⃠ REGION CODE ERROR" appears on the TV screen and the disc tray slides out.

DVD C D

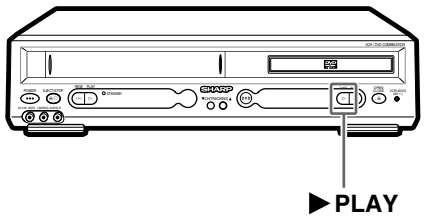
Fast Forward/Fast Reverse

1 Press **FWD▶▶** or **◀◀REV** during playback.
- The disc begins fast scan at ×2 speed (1).



Scanning speed selection

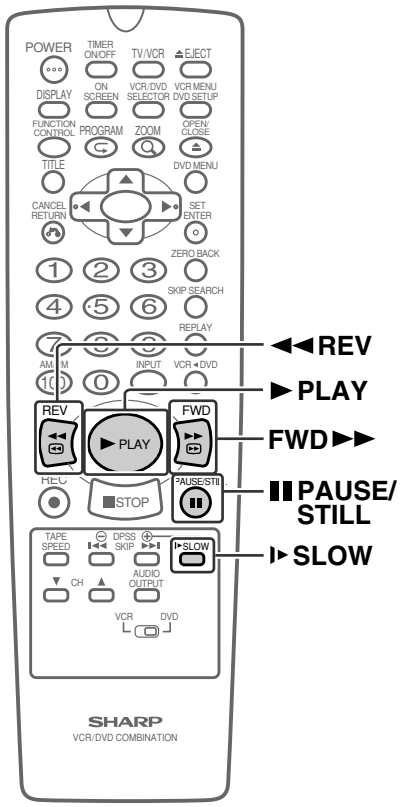
Fast scan image appears here.
(No image is shown for audio CDs.)



- Three speeds are available for DVD, and two speeds are available for audio CDs. Each time **FWD▶▶** or **◀◀REV** is pressed, the speed of fast scan changes in the following sequence:
(DVD)
→1 (about ×2) ⟶ 2 (about ×8) ⟶ 3 (about ×32)→

2 Press **▶PLAY** when you reach the desired point.

NOTE
- On some discs, the fast scan function is disabled.
- On DVD video discs, audio and subtitles are not played back during the fast scan playback.
- With a DVD video disc, you cannot search past a title. Playback starts from the beginning of the title.
- With an Audio CD, the search speed toggles between 1 (about ×2) and 2 (about ×8) when you press **FWD▶▶** or **◀◀REV**.
- Audio is not played back during fast scan.



DVD

Slow-Motion Play

1 Press **I▸SLOW** in the play mode or still mode.

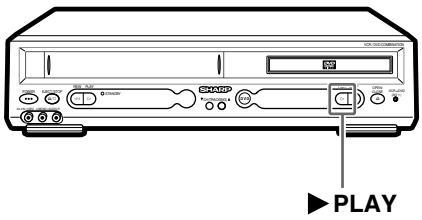
- Three speeds are available. Each time **I▸SLOW** is pressed, the speed of slow-motion playback changes in the following sequence:
(DVD)
→ 1 (about ×1/2) ⟶ 2 (about ×1/8) ⟶ 3 (about ×1/16) →

2 Press **▶PLAY** to return to the normal playback or press **❚❚PAUSE/STILL** to return to the still picture mode.

NOTE
- On some discs, the slow-motion playback functions are disabled.
- Slow-motion playback is disabled on Audio CDs.

DVD C D

Still/Pause



1 Press ❚❚**PAUSE/STILL** during playback.

2 If you press ▶**PLAY** while paused (STILL/PAUSE), normal playback resumes.

DVD

Frame Advance

1 Press ❚❚**PAUSE/STILL** during playback.
- The playback is paused (STILL/PAUSE).
- The disc goes forward by one frame each time ❚❚**PAUSE/STILL** is pressed.

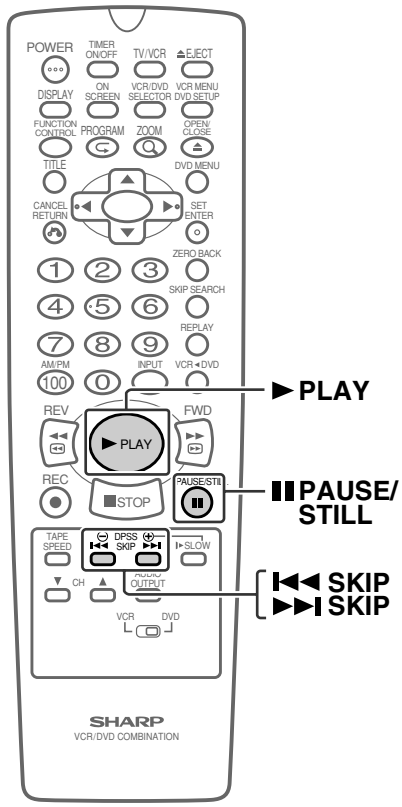
2 Press ▶**PLAY** to return to the normal playback.

DVD C D

Skip (Forward/Reverse)

While you are playing a disc, this function jumps to the beginning of the next chapter/track (Forward) or the current chapter/track (Reverse) and automatically starts playing that chapter/track.

1 While a disc is playing, press **SKIP▶▶|** or **|◀◀SKIP**.
- Playback skips forwards one chapter/track for each time **SKIP▶▶|** is pressed. When the last chapter/track is reached, playback returns to the start of the disc.
- If you press **|◀◀SKIP** and playback begins, and you then press **|◀◀SKIP** again within 3 seconds, playback returns to the beginning of the previous chapter/track.



NOTE
- The frame advance playback functions are disabled for audio CDs.
- On discs or titles that do not have chapter settings, playback skips forward to the next title or back to the beginning of the current title or disc.
- On some discs, the skip functions are disabled.
- The playback image is not displayed during the skip. It resumes during playback following the skip.

DVD

Zooming an Image

1 While a disc is playing, press **ZOOM**.

- Each press of **ZOOM** cycles through the zoom settings in the following sequence:

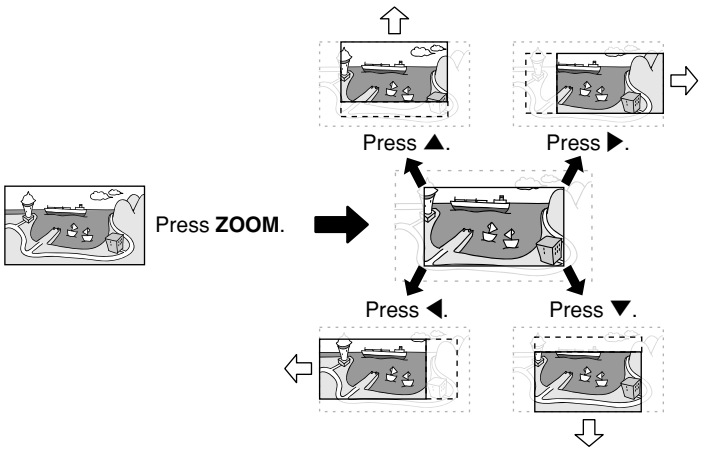
  ZOOM 1 (×1.2) → ZOOM 2 (×1.5) → ZOOM 3 (×2.0) → Off.

- When playing a Pan & Scan disc while 4 : 3 PS is selected as the "TV MODE" setting on the "TV MODE SETUP" screen, each press of **ZOOM** cycles through zoom settings in the following sequence:

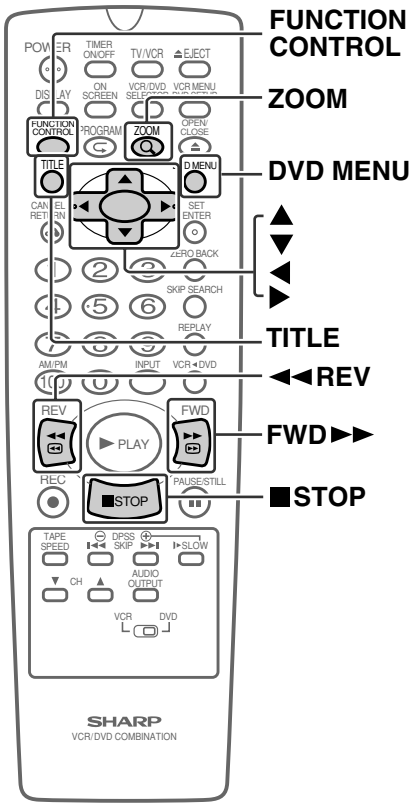
  ZOOM 1 (×1.2) → ZOOM 2 (×1.5) → Off.

  Note that all of the above zoom factors are approximate only.

- While an image is zoomed, you can use ▲, ▼, ◀ and ▶ to shift the view and display the part you want.



ZOOM indicator



- The ZOOM indicator changes from white to red to let you know when you are trying to perform an illegal shift of view. If you are already at the far left side of the image, for example, the zoom indicator will become red when you press ◀.

NOTE

- An image may become distorted when zoomed.
- You can cancel the zoom operation by pressing ■**STOP**, **DVD MENU**, **TITLE**, **FWD▶▶**, **◀◀REV** or **FUNCTION CONTROL**.
- The setting screen is cleared automatically whenever you display a DVD screen that enables you to change the scene by pressing ▲, ▼, ◀ or ▶.
- Subtitle cannot be zoomed.

Playing MP3 Discs

This Unit is able to play CD-R or CD-RW discs recorded in MP3 format.

Regarding MP3 discs

- MP3 files are audio data compressed in MPEG1 Audio layer 3 file format. “MP3 files” have “.mp3” as extensions.
- Some files that have “.mp3” extensions or files that have not been recorded in MP3 format will produce noise or cannot be played.
- Some discs cannot be played depending on the actual CD-R/CD-RW disc condition, the recording equipment and the disc’s recording.
- Data on the CD-R or CD-RW disc, which has not been recorded in MP3 format, audio tracks or has been recorded in other file formats except MP3, cannot be played.

Playing MP3 discs

- Discs that have more than 1000 folders and files in total cannot be played.
- Some MP3 files are not played in the order they were recorded.
- The number of layers, which can be recognized, including files and folders, is maximum 8.
- Only the first session of a multi-session disc can be played.
- When both audio tracks and MP3 files are recorded on a disc, audio tracks will be played.
- Depending on the folder tree, reading MP3 files can take time.
  (The more files there are, the longer the reading time. Therefore it is recommended to lower the number of folders before recording.)
- Folder or track (file) names are limited to 8 characters. The folder / file names are displayed in half-size, capital letters or half-size numbers. Folder or track (file) names that go over 8 characters will be abbreviated.
- Depending on the character or symbol, MP3 folders or files have their names replaced, for example: SHARP_1 → SHARPO1, SHARP˜1 → SHARPN1, SHARP-1 → SHARPM1.
- The playing time may not be correctly displayed during MP3 file playback.
- It is recommended to record data at a lower speed as data recorded at fast speed can produce noise and may not be able to be played.

⚠CAUTION

- It is impossible to make a digital copy by using a digital audio recording device which outputs sound from discs in MP3 format through the coaxial digital output jack of this Unit.

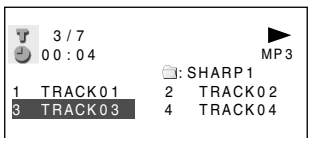
To play MP3 discs

1 Press **POWER** to turn on this Unit.

2 Load the MP3 recorded CD-R or the CD-RW.
- The folder selection screen will be displayed as well as the “SELECT/ENTER button”.

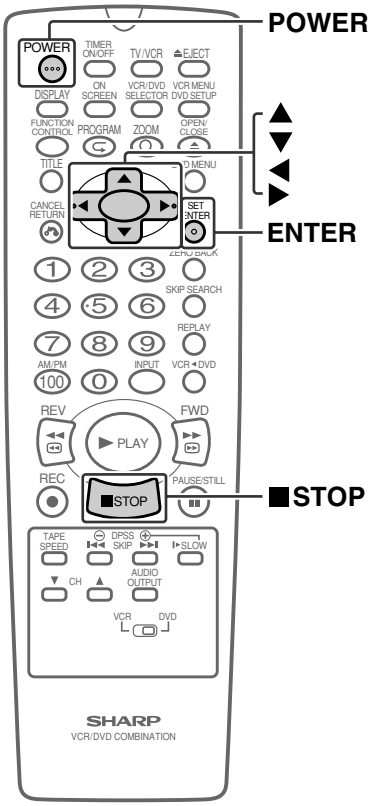
3 Select the folder you want to play by using ▲, ▼, ◀ or ▶ and press **ENTER**.
- The file (music title) in the folder is displayed on the file selection screen.

4 Select the file (music title) you want to play by using ▲, ▼, ◀ or ▶ and press **ENTER**.
- The chosen file (music title) will be played in sequence.
- When playing starts, the operation button will be displayed.



NOTE
- You can also use the number buttons to select the folder/file in steps 3 and 4.

5 Press ■**STOP** to stop playback.



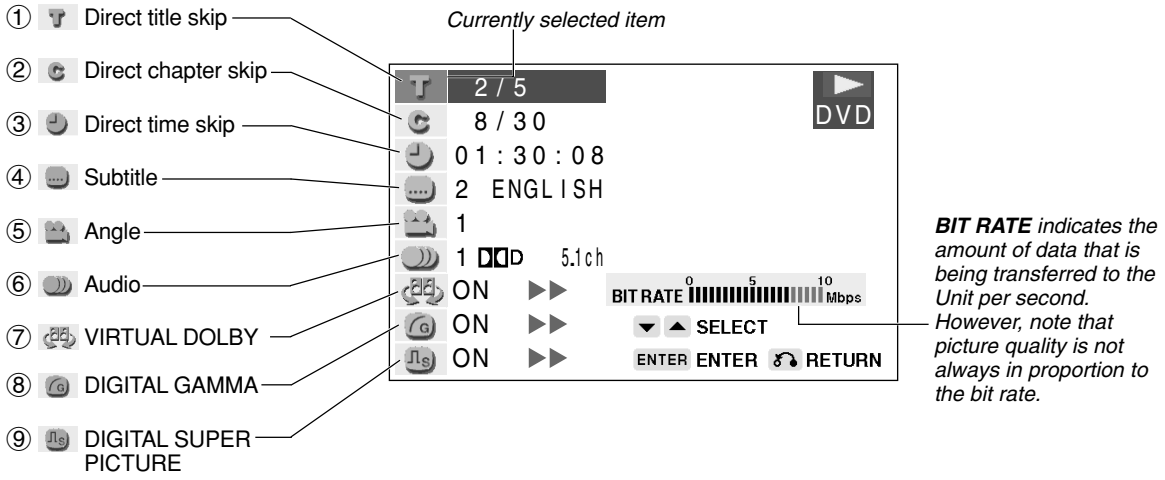
While the MP3 disc is playing

- Fast Forward, Rewind and Time Search are disabled.
- Programmed playback is disabled.
- It is possible to repeat one track or the entire disc.

About the Function Control Screen DVD

Using Function control, you can check at a glance and change the current settings of the following items: SUBTITLE, ANGLE, AUDIO, VIRTUAL DOLBY, DIGITAL GAMMA and DIGITAL SUPER PICTURE.
Function control also allows you three ways of direct skips (title,chapter and time).

- While the disc is playing, press **FUNCTION CONTROL** to display the screen shown below.
- Pressing ▲ or ▼ changes the currently selected item.
- Numbers in refer to the pages where the setting procedures are described.



① Direct title skip 86

- The number of the title currently played back is displayed.
- You can skip directly to the desired title.

② Direct chapter skip 86

- The number of the chapter currently played back is displayed.
- You can skip directly to the desired chapter.

③ Direct time skip 86

- Elapsed time from the beginning of the disc is displayed.
- You can skip directly to the point from which you want to start playback.

④ Subtitle setting 87

- The subtitle number and language currently selected are displayed. (When a disc with only one subtitle is played back, xx is displayed.)
- You can select the desired subtitle language.

⑤ Angle setting 88

- The current angle is displayed. (When a disc with only one angle is played back, xx is displayed.)
- You can select the desired angle.

⑥ Audio setting 89

- The type of audio currently selected is displayed.
- You can select the desired type of audio.

⑦ VIRTUAL DOLBY setting 90

- This function provides rich surround sound by downmixing Dolby Digital 5.1 channel and Dolby Surround (Pro Logic) to 2-channel audio or TV.
- You can toggle the setting between “ON” and “OFF”, and change the level.
- When “COMPRESSION” is “ON”, this function is disabled, which is indicated by xx. To use the VIRTUAL DOLBY function, set the “COMPRESSION” to “OFF” (see page 44).

⑧ DIGITAL GAMMA setting 91

- You can make the entire image easier to see by brightening the darker and obscure portions.
- You can toggle the setting between “ON” and “OFF”, and change the level.

⑨ DIGITAL SUPER PICTURE setting 92

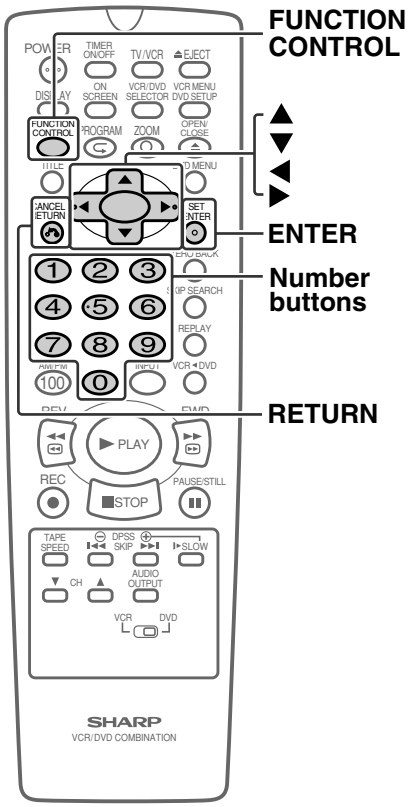
- This function enhances the fine detail of the image and outlines of the objects it contains by reducing the amount of picture noise.
- You can toggle the setting between “ON” and “OFF”, and change the level.

NOTE

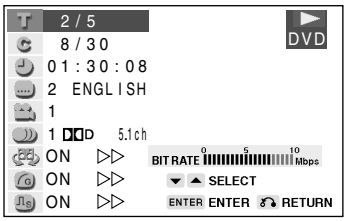
- In Function control mode, you can return to the previous setting screen by pressing **RETURN** or **FUNCTION CONTROL**.
- You can cancel the Function control mode by pressing ■**STOP**, **DVD MENU**, **TITLE**, **FWD▶▶**, **◀◀REV** or **ZOOM**.
- The setting screen is cleared automatically whenever you display a DVD screen that prompts you to change the scene by pressing ▲, ▼, ◀, or ▶.

Direct skip (title/chapter/time)

Use the following procedure to perform the Direct title skip, Direct chapter skip, or Direct time skip.

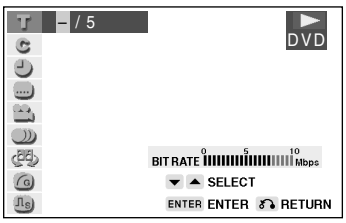


1 Press **FUNCTION CONTROL** during playback.
- The Function control screen appears.



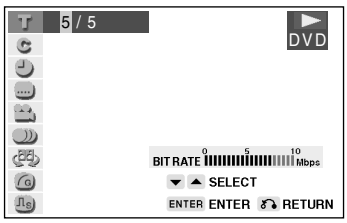
2 Use ▲ or ▼ to select and then press **ENTER**.

(Example) Direct title skip



3 Use number buttons (**0** to **9**) to input the title number to which you want to skip.
- You can also use ▲ or ▼ to input the title number.
- When you specify the time for the direct time skip, use ◀ or ▶ to move the highlighting to the next or previous digit .

(Example) Entering title 5

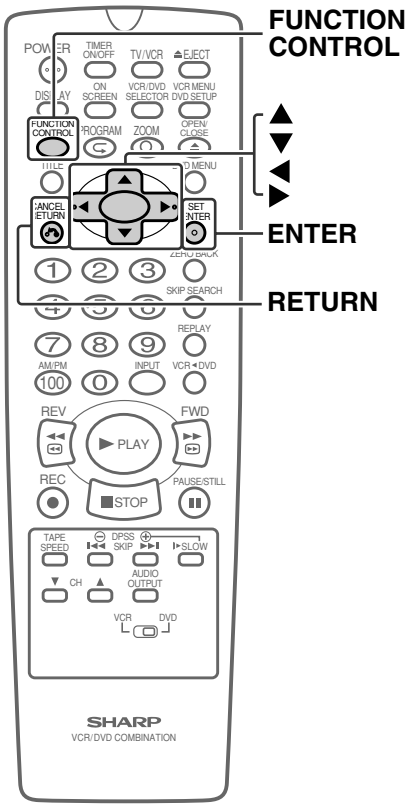


4 Press **ENTER**.
- The played back image changes to the beginning of the specified title.
- You can exit the Function control screen by pressing **RETURN** or **FUNCTION CONTROL**.

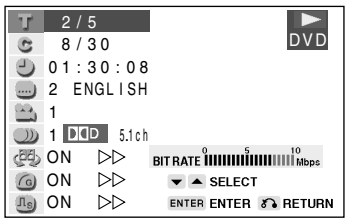
NOTE
- The number of titles, chapters or times you can input depends on that of the titles, chapters or times recorded on a disc you play.

Subtitle language setting

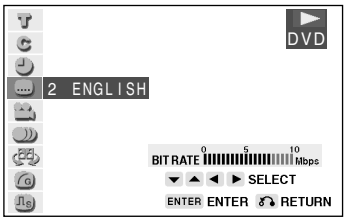
Use the following procedure to perform the Subtitle language setting.



1 Press **FUNCTION CONTROL** during playback.
- The Function control screen appears.

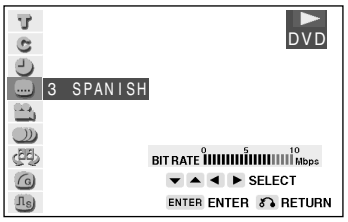


2 Use ▲ or ▼ to select and then press **ENTER**.



3 Press ▲ or ▼ to select the subtitle language you want to use.
- You can set the subtitle setting to “OFF”.
- You can also toggle the setting between “ON” and “OFF” by pressing ◀ or ▶.

(Example) Selecting “3 SPANISH”

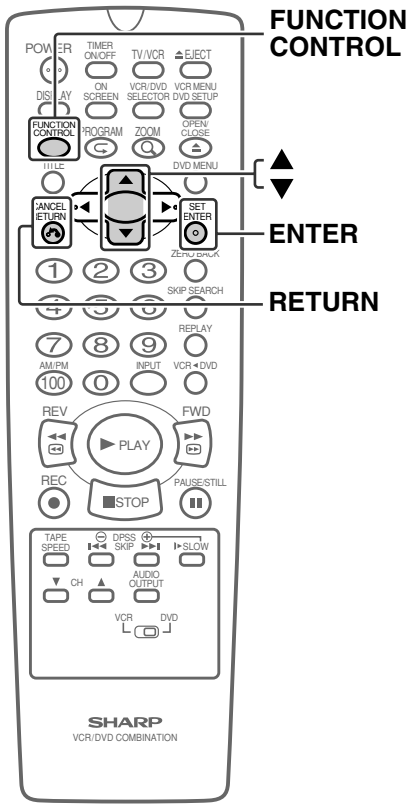


4 Press **ENTER** to confirm the setting.
- You can exit the Function control screen by pressing **RETURN** or **FUNCTION CONTROL**.

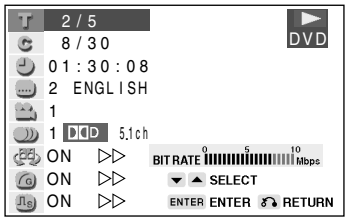
NOTE
- This function can only be used for discs on which subtitles have been recorded in multiple languages.
- Some DVD discs are marked “Forced Display”, indicating that the subtitling cannot be suppressed. With such discs, the subtitles will be displayed even when you select “ OFF” display. This does not indicate a fault with this Unit.
- If no subtitles are recorded on the disc, [XX] is displayed.

Angle setting

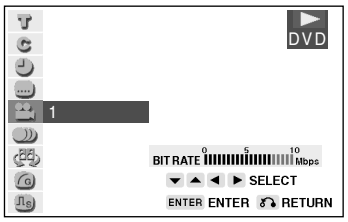
You can change the angle of view when playing a DVD video disc that contains scenes recorded from multiple angles.
Use the following procedure to perform the Angle setting.



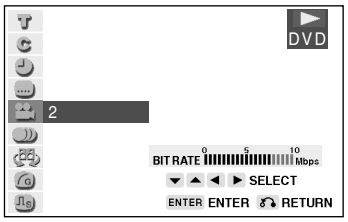
1 Press **FUNCTION CONTROL** during playback.
- The Function control screen appears.



2 Use ▲ or ▼ to select and then press **ENTER**.



3 Press ▲ or ▼ to select the angle number you want.
- The number of recorded angles differs depending on the disc used.

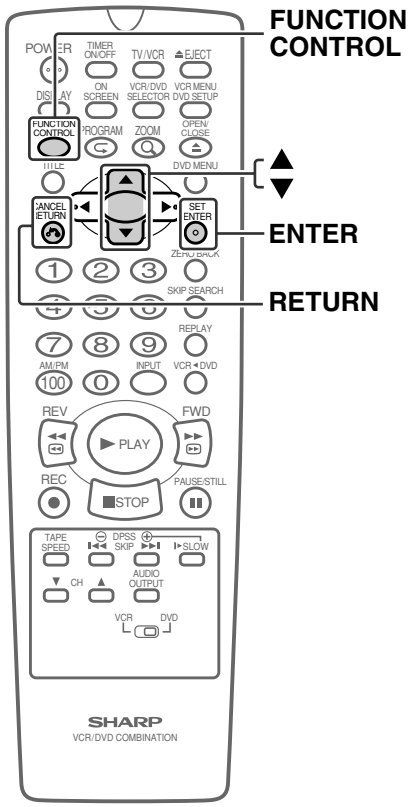


4 Press **ENTER** to confirm the setting.
- You can exit the Function control screen by pressing **RETURN** or **FUNCTION CONTROL**.

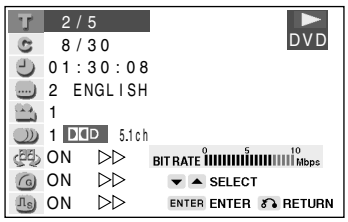
NOTE
- This function can only be used for discs on which scenes shot from multiple angles have been recorded.
- If no angles are recorded on the disc, XX is displayed.

Audio setting

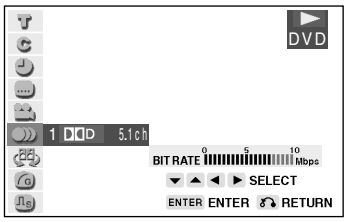
A number of different methods are used to record audio onto a DVD video disc, including multi-channels (used for voiceovers in other languages), Dolby Digital (5.1ch), DTS, and Linear PCM. This Unit provides a number of different audio modes from which you can choose to suit the type of disc you are playing.
Use the following procedure to perform the Audio setting.



1 Press **FUNCTION CONTROL** during playback.
- The Function control screen appears.

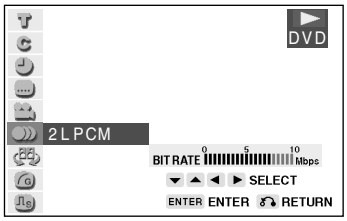


2 Use ▲ or ▼ to select and then press **ENTER**.



3 Press ▲ or ▼ to select the audio format you want to use.
- See page 44 for details about the types of audio format.
- When playing an Audio CD, the audio playback changes in the following sequence:

L+R → L → R



4 Press **ENTER** to confirm the setting.
- You can exit the Function control screen by pressing **RETURN** or **FUNCTION CONTROL**.

NOTE
- This function can only be used for discs on which the sound has been recorded in multiple formats.
- With certain types of discs, you can change the audio using the disc menu. (See page 44.)
- A DTS digital surround decoder is required to listen to DTS audio.

VIRTUAL DOLBY (QSURROUND) setting

This function allows you to enjoy a “surround sound” effect when you are using an analog connection (using AV1 OUT on this Unit) to 2-channel audio equipment (TV, etc.).

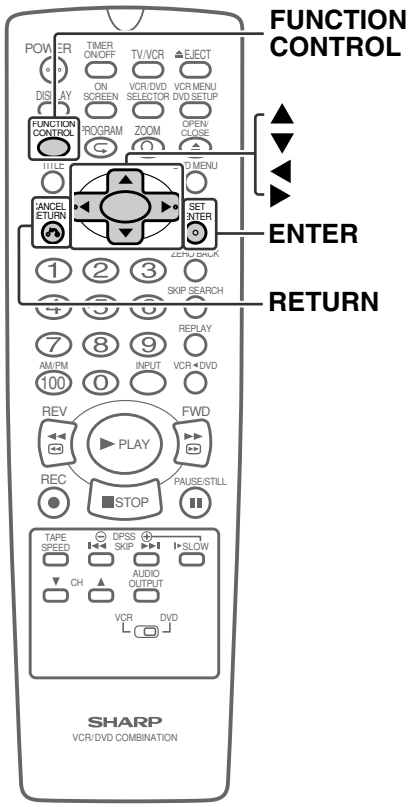
Preparation

To use the VIRTUAL DOLBY (QSURROUND) function

- Set the “COMPRESSION” setting in “AUDIO SETUP” to “OFF” (see page 44).

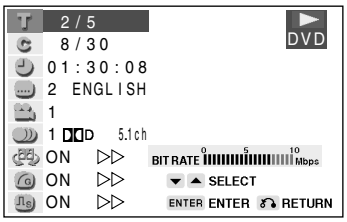
Refer to the table below about the types of audio format with which VIRTUAL DOLBY (QSURROUND) works.

Types of audio recorded on the disc			
Dolby Digital	Dolby Pro Logic	Dolby Digital 2ch/Linear PCM	DTS
×	×	—	—

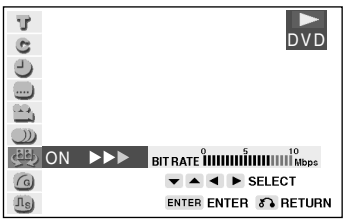


1 Press **FUNCTION CONTROL** during playback.

- The Function control screen appears.

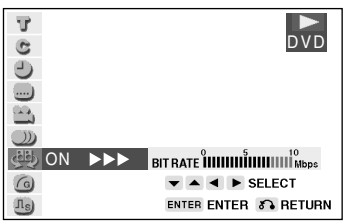


2 Use ▲ or ▼ to select and then press **ENTER**.



3 Press ▲ or ▼ to toggle VIRTUAL DOLBY between “ON” and “OFF”.

4 While “ON” is selected, use ◀ or ▶ to change the level setting.



5 Press **ENTER** to confirm the setting.

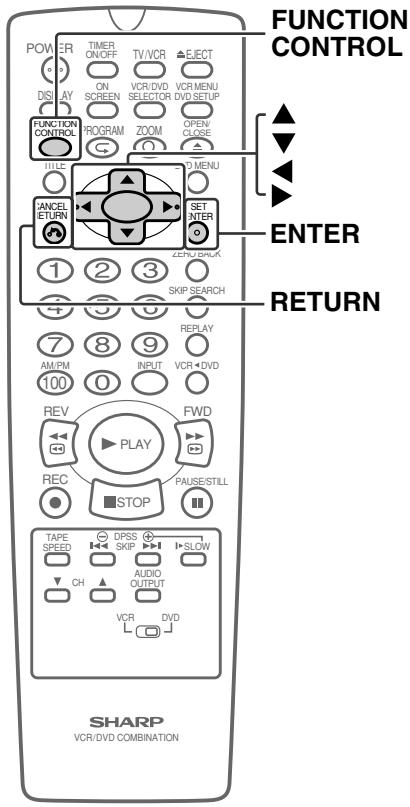
- You can exit the Function control screen by pressing **RETURN** or **FUNCTION CONTROL**.

NOTE

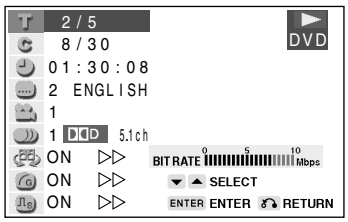
- VIRTUAL DOLBY (QSURROUND) does not operate on Audio CDs.
- VIRTUAL DOLBY (QSURROUND) does not operate when you set the “COMPRESSION” setting in “AUDIO SETUP” to “ON”.
- VIRTUAL DOLBY (QSURROUND) does not operate when you are using a Digital connection.
- QSURROUND™ is a trademark of QSound Labs, Inc.
- VIRTUAL DOLBY (QSURROUND) does not operate when you play back a disc recorded using Linear PCM or DTS format.

DIGITAL GAMMA setting

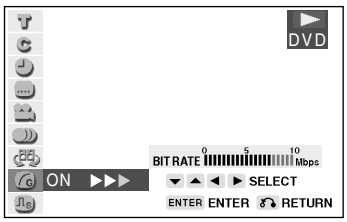
DIGITAL GAMMA is a digital image quality enhancement function that gives a richer image by brightening the darker and more obscure portions of the image without altering the brightness of the brighter portions, thereby making the entire image easier to see. Three digital gamma settings are available to allow for differences in the images played and in brightness of the room.



1 Press **FUNCTION CONTROL** during playback.
- The Function control screen appears.



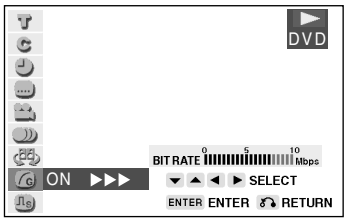
2 Use ▲ or ▼ to select and then press **ENTER**.



3 Press ▲ or ▼ to toggle DIGITAL GAMMA between “ON” and “OFF”.

4 While the “ ON” is displayed, press ◀ or ▶.
- The level selection indicator that shows the current level appears.
- If no button is pressed within 10 seconds, the level selection indicator goes off.

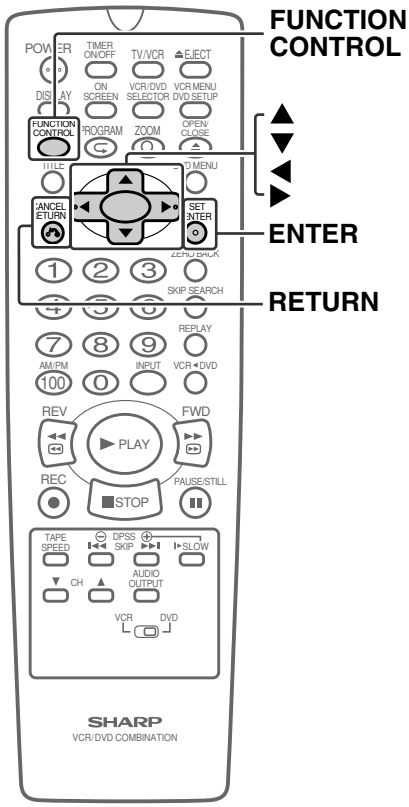
5 Use ◀ or ▶ to change the level.



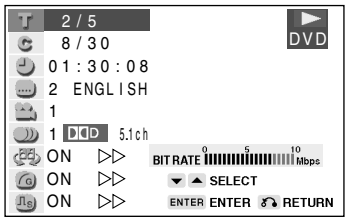
6 Press **ENTER** to confirm the setting.
- If no change is made for 10 seconds after the level is set, the level indicator goes off.
- You can exit the Function control screen by pressing **RETURN** or **FUNCTION CONTROL**.

DIGITAL SUPER PICTURE setting

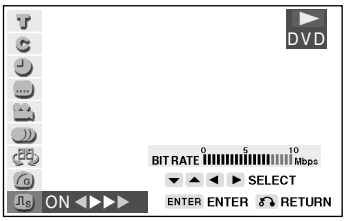
DIGITAL SUPER PICTURE is a digital image quality enhancement function that gives a clearer image by sharpening the details and outlines in the image and reducing the amount of picture noise. The DIGITAL SUPER PICTURE setting can be varied as desired.



1 Press **FUNCTION CONTROL** during playback.
- The Function control screen appears.



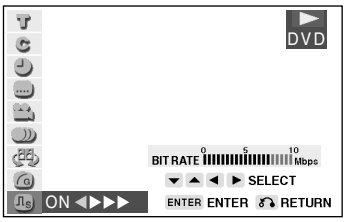
2 Use ▲ or ▼ to select and then press **ENTER**.



3 Press ▲ or ▼ to toggle DIGITAL SUPER PICTURE between "ON" and "OFF".

4 While the " ON" is displayed, press ◀ or ▶.
- The level selection indicator that shows the current level appears.
- If no button is pressed within 10 seconds, the level selection indicator goes off.

5 Use ◀ or ▶ to change the level.
- To see more detail in very intricate images, set this setting to ▷▷▷.
- To obtain a subtle softening of the outlines of the displayed images, set this setting to ◁.



6 Press **ENTER** to confirm the setting.
- If no change is made for 10 seconds after the level is set, the level indicator goes off.
- You can exit the Function control screen by pressing **RETURN** or **FUNCTION CONTROL**.

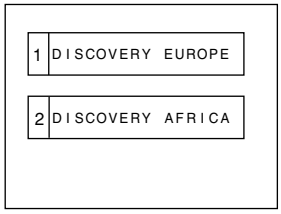
Direct Selection of Scenes

DVD

Selecting Scenes by Title Number

1 Press **TITLE** to show the title screen.

(Example)



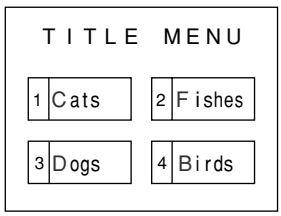
2 Use the number buttons (**0** to **9**) to enter the desired title, or ▲, ▼, ▶ or ◀ to highlight the desired title.

3 When you press **ENTER** or ▶ **PLAY**, the title specified in step 2 starts playing.

Selecting Scenes from the Menu Screen

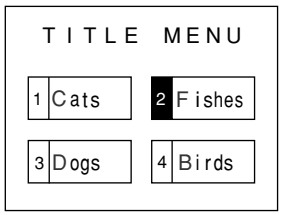
1 Press **DVD MENU** to show the menu screen.

(Example)

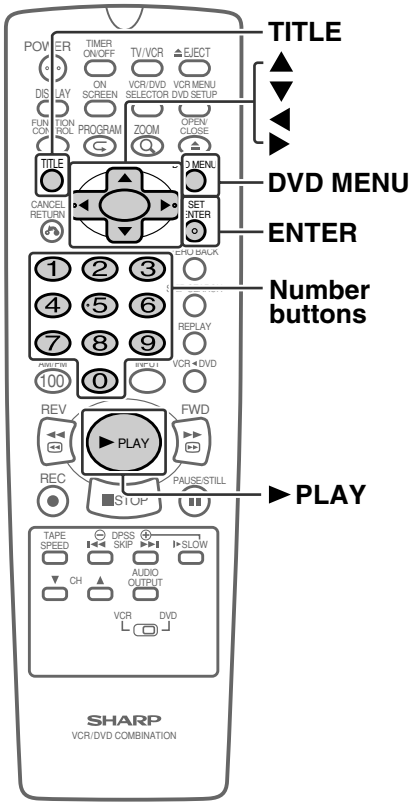


2 Use the number buttons (**0** to **9**) or ▲, ▼, ▶ or ◀ to highlight the desired title.

(Example) Title 2 selected.



3 When you press **ENTER** or ▶ **PLAY**, title 2 starts playing.



NOTE

- These functions only operate on DVD discs that have a title or menu screen.
- Languages not provided on the disc are not displayed.

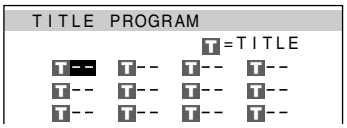
Programmed Playback

The three types of programmed playback provided by this Unit are title programmed playback (DVD discs), chapter programmed playback (DVD discs) and track programmed playback (audio CD discs).

DVD

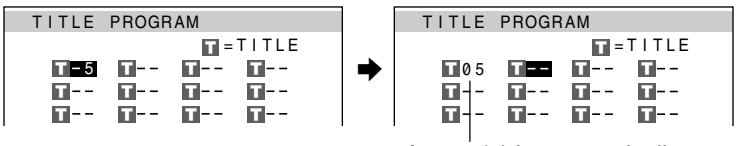
Title Programmed Playback

1 Press **PROGRAM** while the disc is stopped.
- The "TITLE PROGRAM" screen appears.



2 Use the number buttons (**0** to **9**) to enter the title numbers in -- and then press ▶. (The highlight moves to the right (next field).)
- If the entered title number does not exist on the disc, the number is ignored when ▶ is pressed.

(Example) Title 5 entered.

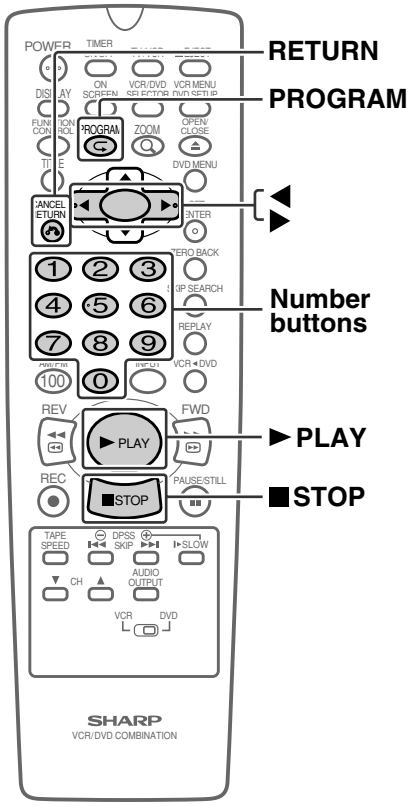


A zero (0) is automatically inserted before the first digit.

3 Repeat step 2 for each of the titles that you want to play as part of the program.
- If you enter two or more digits, only the last two digits are displayed.
- If you enter the wrong number, press ◀ and re-enter the number.

4 Press ▶**PLAY** to begin playing the programmed titles. (Press this button while the "TITLE PROGRAM" screen is displayed.)
- PROGRAM indicator lights on the DVD Front Panel display.

5 Press ■**STOP** to stop programmed playback.

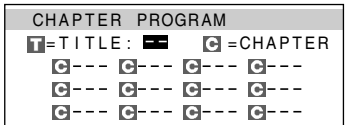


NOTE
- On some discs, the programmed playback is disabled.
- Up to 20 titles can be programmed.
- To exit the "TITLE PROGRAM" screen, press **RETURN** or ■**STOP**.

DVD

Chapter Programmed Playback

1 Press **PROGRAM** twice while the disc is stopped. (Press once for a title and twice for a chapter.)
- The "CHAPTER PROGRAM" screen appears.



2 First, use the number buttons (**0** to **9**) to specify the desired title number and then press ▶.

3 Use the number buttons (**0** to **9**) to enter the chapter number in --- and then press ▶. (The highlight moves to the right (next field).)
- If the entered chapter number does not exist on the disc, the number is ignored when ▶ is pressed.

(Example) Chapter 35 entered.

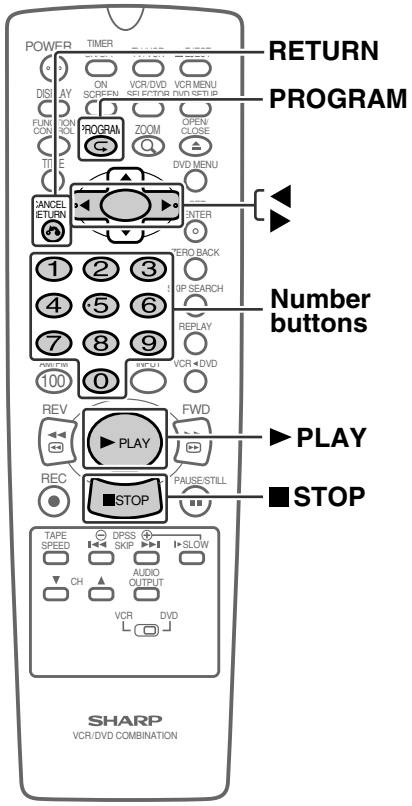
(C 35 C) → (C035 C---)

A zero (0) or double-zero (00) is automatically inserted before the first or second digit.

4 Repeat step 3 for each of the chapters that you want to play as part of the program.
- If you enter three or more digits, only the last three digits are displayed.
- If you enter the wrong number, press ◀ and re-enter the number.

5 Press ▶**PLAY** to begin playing the programmed chapters. (Press this button while the "CHAPTER PROGRAM" screen is displayed.)
- PROGRAM indicator lights on the DVD Front Panel display.

6 Press ■**STOP** to stop programmed playback.

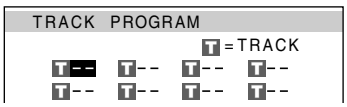


NOTE
- Up to 20 chapters can be programmed.
- To exit the "CHAPTER PROGRAM" screen, press **RETURN** or ■**STOP**.

CD

Track Programmed Playback

1 Press **PROGRAM** while the disc is stopped.
- The "TRACK PROGRAM" screen appears.



2 Use the number buttons (**0** to **9**) to enter the track number in -- and then press ▶. (The highlight moves to the right (next field).)
- If the entered track number does not exist on the disc, the number is ignored when ▶ is pressed.

(Example) Track 7 entered.

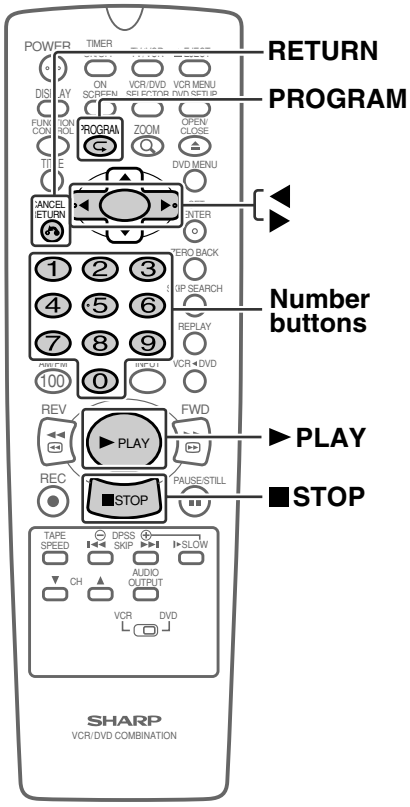
(T 7 T) → (T 07 T--) A zero (0) is automatically inserted before the first digit.

3 Repeat step 2 for each of the tracks that you want to play as part of the program.
- If you enter two or more digits, only the last two digits are displayed.
- If you enter the wrong number, press ◀ and re-enter the number.
- To exit the "TRACK PROGRAM" screen, press **RETURN** or **■STOP**.

4 Press **►PLAY** to begin playing the programmed tracks. (Press this button while the "TRACK PROGRAM" screen is displayed.)
- PROGRAM indicator lights on the DVD Front Panel display.

5 Press **■STOP** to stop programmed playback.

NOTE
- Up to 20 tracks can be programmed.
- To exit the "TRACK PROGRAM" screen, press **RETURN** or **■ STOP**.



Repeat Playback

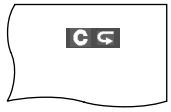
DVD

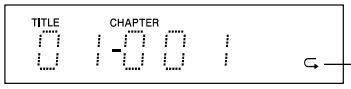
Chapter Repeat

Example: To repeat play the chapter you are currently viewing.

1 Play the chapter you want to repeat.

2 Press ⊂**(REPEAT)** and then press ▶**PLAY** to repeat the chapter play.





- Press ⊂**(REPEAT)** to turn off the "⊂" indicator when returning to regular playback.

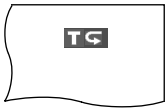
NOTE
- Repeat playback is disabled on some discs.
- On discs without chapters, this Unit repeats the current title.

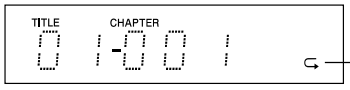
Title Repeat

Example: To repeat play the title you are currently viewing.

1 Play the title you want to repeat.

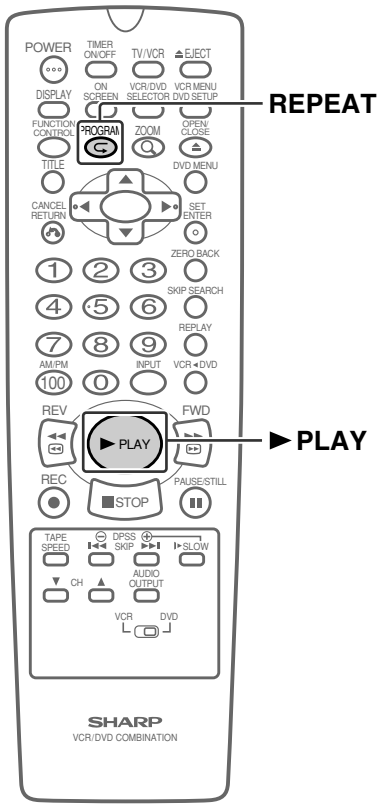
2 Press ⊂**(REPEAT)** twice and then press ▶**PLAY** to repeat the title play.





- The DVD Front Panel displays are the same as for chapter repeat playback.
- Press ⊂**(REPEAT)** to turn off the "⊂" indicator when returning to regular playback.

NOTE
- Repeat playback is disabled on some discs.



DVD CD

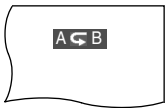
A-B Repeat

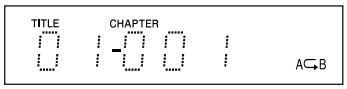
A-B repeat allows you to repeat specified section on the disc.

1 Press ⊂**(REPEAT)** three times while a disc is playing.

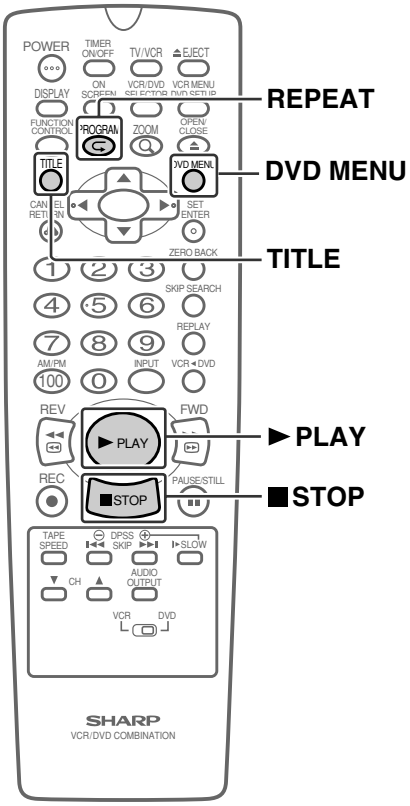
2 While you are playing a disc, press ▶**PLAY** when you reach the start of the section to be repeated.

3 While the disc is playing the same title (same chapter/track), press ▶**PLAY** again when you reach the end of the section to be repeated.





- The A-B repeat begins from the point where you specified in step 1.
- Press ⊂**(REPEAT)** to turn off the "⊂" indicator when returning to regular playback.



NOTE

- To cancel A-B repeat, press ■ **STOP**, **TITLE** or **DVD MENU**.
- A-B repeat can only be used within the same title/track. (On some DVD discs, A-B repeat is restricted to the same chapter.) If the start and end of the section to be repeated are in different titles/ chapters/tracks, A-B repeat is cancelled.
- If the DVD Front Panel display does not show the elapsed playback time while a disc is playing, A-B repeat playback cannot be used for that disc.
- The A-B repeat function does not operate in scenes where different camera angles are recorded.

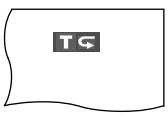
CD

Track Repeat/Disc Repeat

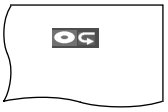
Example: To repeat play a track.

1 While a disc is playing, press ⊂**(REPEAT)** and then press ▶**PLAY**.

- The track currently playing is played repeatedly.



- To perform disc repeat playback, press ⊂**(REPEAT)** twice.



- Press ⊂**(REPEAT)** to turn off the "⊂" indicator when returning to regular playback.

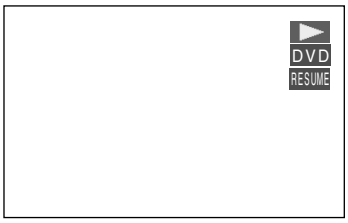
NOTE

- Repeat playback is disabled on some discs.
- Repeat playback cannot be used during programmed playback.

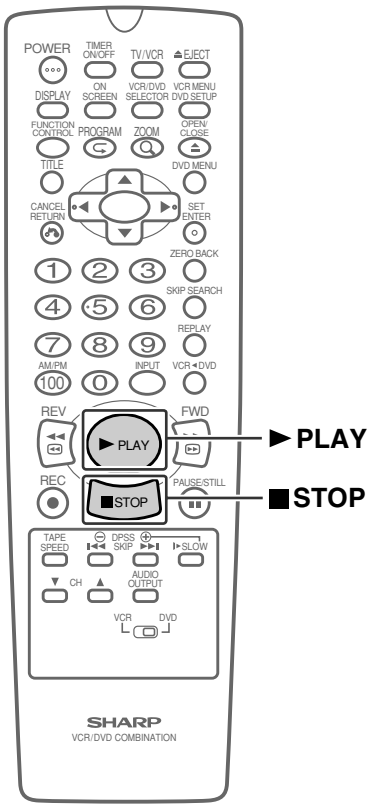
Resume Function DVD

This function enables you to resume the playback from the location you specify.

1 Press ■**STOP** at the desired point during playback.
- "RESUME" appears followed by "RESUME" on the screen.
- This Unit stores the location where you stopped.



2 Press ►**PLAY** to restart play.
- Play resumes from a point slightly before the point where it was stopped.
- Press ►**PLAY** to resume disc play, if auto-playback starts from the beginning of the disc when you reload the same disc after removing it.



NOTE
- The continued playback described here may not be possible on some discs (such as discs that automatically start playing when the disc tray closes).
- Resume playback is disabled on Audio CDs.
- After you press ■**STOP** to stop playback, you can press ■**STOP** again to resume playback from the beginning of the disc.

This resume operation does not work in the following cases.
- If you press ■**STOP** twice.
- If you press ■**STOP** during auto-playback.
- If you remove a disc and then load another one.

Troubleshooting

The following problems do not always denote a broken this Unit.
Perform the checks listed below before calling service.

■ VCR/DVD

Problem	Suggested Solution
• No power	• Is the power cord connected properly? • Is the power cord firmly plugged into the power outlet? • One of the safety mechanisms may be operating. In this event, unplug the Unit from the power outlet briefly and then plug it in again.
• The remote control does not work.	• Are the batteries loaded correctly? • Are the batteries flat? • Is the signal emitter on the remote control pointing at the Unit? • Is the remote control too far from the Unit, or is there any obstacle between the remote control and the Unit? • Did the **VCR/DVD CHANGE Switch** change correctly?
• No picture	• Did the **VCR/DVD SELECTOR** change correctly?
• DEW	• See page 5 for information.

■ VCR

Problem	Possible Cause/Solutions
• VCR does not receive CATV channels.	• Use the CHANNEL PRESET screen to change from AIR mode to CATV. (See **Channel Setting** on page 32.)
• VCR does not operate.	• Turn on the power. • Press **EJECT** several times. • Safety device in this Unit is functioning. Unplug the Unit and plug it in again after a few minutes.
• VCR does not record.	• Cassette erasure protection tab is removed. Use a different cassette or place adhesive tape over the tab opening. • Check for a cassette loaded in the unit.
• No tape movement.	• Make sure the VCR is not in PAUSE/STILL mode. • Make sure the tape has not reached the end or beginning.
• No picture appears during playback.	• Make sure the TV is set to the same channel as the Unit's 3 ↔ 4 OUTPUT CHANNEL selector. • Check all connecting cables.
• Cassette cannot be loaded.	• Make sure there is no other cassette inside. • Make sure the cassette is properly positioned and reinsert.
• Timer recording does not work.	• Power failure may have occurred. • If the clock display is blinking, set the clock and try again.
• Noise appears on the screen when the automatic tracking control system is operating.	• Adjust the tracking manually by pressing **CH (TRACKING)** ▲/▼. • In some cases, with a worn or damaged tape, noise cannot be eliminated completely.
• Cannot record a signal through the rear external input jack.	• The VCR may not be set to external input mode. Press **INPUT** to set the VCR to external input mode. (See **Tape Dubbing** on page 73.)
• Picture or sound is not stable during playback.	• Keep the Unit away from electrical and magnetic appliances. Be sure to position the Unit at least "**8**" away from your TV or video monitor.

Problem	Possible Cause/Solutions
• Stereo TV puts out monaural sound only, even when cassettes recorded in Hi-Fi stereo are played back.	• Use RCA pin type connection cables (not the supplied coaxial cable) to connect the TV to the Unit, and set the TV to external video input mode. • Adjust the tracking, or try another Hi-Fi stereo cassette.
• Cassettes recorded in stereo mode are not played back in stereo.	• Make sure the sound was recorded in Hi-Fi stereo. (Any stereo signals recorded on the linear track will not be played back in stereo.)

■ DVD

Problem	Suggested Solution
• The DVD player is switched on but does not operate.	• Have you loaded a disc? • Is the disc unplayable? (See pages 8 – 10.) • Is there dew in the DVD player? (See pages 5 and 10.)
• The playback image does not appear. • No sound is produced.	• Are the video and audio cables connected correctly? (See pages 16 – 19.) • Is the disc scratched? (See page 9.) • Is the disc dirty? (See pages 9 and 10.) • Is the disc loaded upside down? • Is the video output selector set to the correct position? (See page 28.) • Is the input selector on the TV set to “VIDEO” or “AV”? • Is the audio equipment switched on and are all the components connected properly? (Refer to the operation manuals for your audio equipment.)
• The sound is not Dolby Digital (5ch or 5.1ch).	• Is the disc you are playing recorded in Dolby Digital (5ch or 5.1ch)? • Have you set the “ DIGITAL” in “AUDIO SETUP” to “BITSTREAM”? (See page 44.)
• The image and sound are garbled.	• Is the disc scratched? (See page 9.) • Are vibrations from the speakers affecting the DVD player?
• The sound is not stable during playback.	• Set the “COMPRESSION” in “AUDIO SETUP” to “OFF” (See page 45.)

This unit is equipped with a microprocessor. Its performance could be adversely affected by external electrical noise or interference. If this should happen, unplug the Unit and plug it in again after a few minutes.

Service Information (For the U.S.)

For the location of the nearest Sharp Authorized Service Center, or to obtain product literature, accessories, supplies or customer assistance, please call **1-800-BE-SHARP** (1-800-237-4277) or visit SHARP’s website (http://**www.sharp-usa.com**).

Glossary

■ VCR

19μ Clean Picture System — For enhanced picture quality in EP(Extended Play)mode.

Exact Rec — This function is used to prevent running out of tape by automatically switching to the EP mode halfway, when running out of tape while recording in the SP mode.

EZ Set Up — VCR tuner channels and clock are automatically set for both Air and Cable channels.

Full Automatic Playback — This function automatically turns the power on and starts to playback when a tape with the erasure protection tabs removed is inserted.

Sharp Super Picture — Enhanced picture quality during playback.

S-VHS Quasi Playback — This function facilitates S-VHS software playback. The original high picture quality of S-VHS (horizontal resolution of 400 lines) cannot be played.

Tracking Control — When noise appears on an image during tape playback, you can adjust the image quality to a suitable level so as to reduce the noise.

■ DVD

Angle — Recorded onto some DVD discs are scenes which have been simultaneously shot from a number of different angles (the same scene is shot from the front, from the left side, from the right side, etc,). With such discs, you can select the angle on Function Control Screen to view the scene from different angles.

Chapter Number — These numbers are recorded on DVD discs. A title is subdivided into many sections, each of which is numbered, and specific parts of video presentations can be searched quickly using these numbers.

Compression (Dolby Digital output level) — Setting that increases the average volume of Dolby Digital audio when playing a DVD.

Digital Gamma — Corrects for gradations in dark areas of images to make images clearer.

Digital Super Picture — Enhances the fine detail of the image and outlines of the objects it contains.

Dolby Digital (5.1 channel) — A sound system developed by Dolby Laboratories Inc. that gives movie theater ambience to audio output when the DVD video player is connected to a Dolby Digital 5.1 channel processor or amplifier.

Virtual Dolby (QSURROUND) — Provides rich surround sound by downmixing Dolby Digital 5.1 channel and Dolby Surround (Pro Logic) to 2-channel audio.

DTS

This is a digital sound system developed by Digital Theater Systems for use in cinemas. This system uses 6 audio channels and provides accurate sound field positioning and realistic acoustics. (By connecting a DTS Digital Surround decoder, you can also listen to DTS Digital Surround sound.)

DVD

This refers to a high-density optical disc on which high-quality pictures and sound have been recorded by means of digital signals. Incorporating a new video compression technology (MPEG II) and high-density recording technology, DVD enables esthetically pleasing full-motion video to be recorded over long periods of time (for instance, a whole movie can be recorded).
DVD has a structure consisting of two 0.6 mm thin discs which are adhered to each other. Since the thinner the disc, the higher the density at which the information can be recorded, a DVD disc has a greater capacity than a single 1.2 mm thick disc. Since the two thin discs are adhered to each other, there is the potential to achieve double-sided play sometime in the future for even longer duration play.

Letter Box

4:3 LB

Screen size that cuts off the top and bottom of the image to allow playing of Wide (16:9) software on a connected 4:3 TV.

Linear PCM Sound

Linear PCM is a signal recording format used for audio CDs.
The sound on audio CDs is recorded at 44.1 kHz with 16 bits. (On DVD discs, sound is recorded at between 48 kHz with 16 bits and 96 kHz with 24 bits.)

Pan Scan

4:3 PS

Screen size that cuts off the sides of the image to allow playing of Wide (16:9) software on a connected 4:3 TV.

Pickup

Laser device that reads the data from a disc for playback.

Region Number

Number identifying a geographic region of compatibility for a DVD.

Subtitles

These are the printed lines appearing at the bottom of the screen which translate or transcribe the dialog. They are recorded on DVD discs.

Time Number

This indicates the play time which has elapsed from the start of a disc or a title. It can be used to find a specific scene quickly. (It may not work with some discs.)

Title Menu

This is a menu displayed by some DVDs for selection of chapters and subtitle set. The title menu is also called a “top menu”.

Title Number

These numbers are recorded on DVD discs. When a disc contains two or more movies, these movies are numbered as title 1, title 2, etc.

Track Number

These numbers are assigned to the tracks which are recorded on video CDs and audio CDs. They enable specific tracks to be located quickly.

Specifications

	Signal System	NTSC
INPUT/OUTPUT JACKS	DVD/VCR shared output jacks	VIDEO jack: RCA Pin-jack AUDIO jack: RCA Pin-jack
	DVD output jacks	VIDEO jack: S-Video jack AUDIO jack: RCA Pin-jack DIGITAL AUDIO IF: Coaxial digital AUDIO output jack: RCA Pin-jack
	VIDEO input jacks	VIDEO jack: RCA Pin-jack AUDIO jack: RCA Pin-jack
VCR	Video Recording System	Rotary Two-Head Helical Scanning
	Number of Video Heads	4
	Video Signal Standard	NTSC Color System
	Audio Recording System	1 Stationary Head for Linear Audio 2 Rotary Heads for Hi-Fi stereo
	Tape Width	12.7 mm (1/2 inch)
	Tape Speed	(SP) 33.35 mm/sec (1.31 i.p.s.) (LP) 16.67 mm/sec (0.66 i.p.s.) (playback only) (EP) 11.12 mm/sec (0.44 i.p.s.)
	Maximum Recording Time	(SP) 160 min (T-160) (EP) 480 min (T-160)
	Channel Coverage	VHF 2-13 UHF 14-69 CATV 1-125
	Antenna Input	75Ω
	Video Input	Input level: 0.5 to 2.0 Vp-p (75Ω)
	Video Output	Output level: 1.0 Vp-p (75Ω)
	Audio Output (0 dBs = 0.775 Vrms)	Input level: –8 dBs (47kΩ)
	Audio Output (0 dBs = 0.775 Vrms)	Output level: –8 dBs (1kΩ)
	Hi-Fi Audio	Dynamic Range: 90 dB Frequency Response: 20 Hz-20 kHz
	Memory Backup	60 seconds
DVD	DVD/VCR shared Video output	Output level: 1 Vp-p (75Ω)
	S video output	Y output level: 1 Vp-p (75Ω) C output level: 0.286 Vp-p (75Ω)
	Audio output	Output level: 2 Vrms (1 kHz, 0 dB)
	Video signal horizontal resolution	500 lines
	S/N ratio	60 dB
	Audio signal frequency characteristics	For DVD linear PCM playback: 4 Hz to 22 kHz (48 kHz sampling) 4 Hz to 44 kHz (96 kHz sampling) CD playback: 4 Hz to 20 kHz (EIAJ)
	S/N ratio	CD: 95 dB, 1 kHz (EIAJ)
	Dynamic range	DVD linear PCM: 94 dB (EIAJ) CD: 94 dB (EIAJ)
	Total harmonic distortion ratio	CD: 0.006% (EIAJ)
	Pickup	Wave length: 650 nm Laser output: Max. 0.7 mW
	Operating temperature	5°C to 35°C (41°F to 95°F)
	Storage temperature	–20°C to 55°C (–4°F to 131°F)
	Power supply	120 V AC, 60 Hz
	Power consumption	30 W
	Dimensions	430 mm × 99 mm × 346.5 mm (W × H × D) (including attachments) (16 $^{15}/_{16}$" × 3 $^{29}/_{32}$" × 13 $^{21}/_{32}$")
	Weight	5.1 kg (11.3 lbs)

Specifications are subject to change without notice.
Weight and dimensions are approximate.

ESPAÑOL (Guía de operación rápido)

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Para futura referencia, anote los números de modelo y de serie (indicados en la parte posterior esta unidad) en el espacio provisto.

Nº. de modelo: _____

Nº. de serie: _____

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Este símbolo previene al usuario del voltaje aislado dentro de la unidad que puede provocar descargas eléctricas peligrosas.

Este símbolo advierte al usuario que existen instrucciones de operación y de mantenimiento en la literatura incluida en esta unidad.

"ADVERTENCIA—Las reglas de la FCC (Comisión Federal de Comunicaciones) estipulan que cualquier modificación o cambio a este equipo no aprobado expresamente por el fabricante podrá anular la autorización del usuario para operar este equipo".

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SHARP VIDEOGRABADORA/REPRODUCTOR DE VÍDEO DVD, MODELO DV-NC55U.

Este dispositivo cumple con la Parte 15 de las reglas de la FCC (Comisión Federal de Comunicaciones). La operación se encuentra sujeta a las dos condiciones siguientes: (1) Este dispositivo no debería producir interferencias perjudiciales, y (2) este dispositivo debe aceptar cualquier interferencia recibida, incluyendo las que puedan producir una operación indeseable.

RESPONSABLE:

SHARP ELECTRONICS CORPORATION
Sharp Plaza, Mahwah, New Jersey 07430-2135
TEL: 1-800-BE-SHARP

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Este equipo se ha sometido a todo tipo de pruebas y cumple con las normas establecidas para dispositivo digital de Clase B, de conformidad con la Parte 15 de las reglas de la FCC (Comisión Federal de Comunicaciones). Estas reglas están diseñadas para asegurar una protección razonable contra interferencias perjudiciales en las instalaciones residenciales. Este equipo genera, utiliza y puede emitir energía de radiofrecuencia y, si no se instala y utiliza debidamente, es decir, conforme a las instrucciones, podrían producirse interferencias perjudiciales en las radiocomunicaciones. Sin embargo, no se garantiza que estas interferencias no se produzcan en una instalación determinada. Si este equipo ocasiona interferencias en la recepción de radio o televisión, lo cual puede comprobarse con sólo apagar y encender el equipo, intente corregir el problema mediante una o una combinación de las siguientes medidas:

—Reoriente la antena receptora o cámbiela de lugar.
—Aumente la separación entre el equipo y el receptor.
—Enchufe el equipo a una toma de corriente situada en un circuito distinto del receptor.
—Consulte a su distribuidor o a un técnico experto en radio/televisión.

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EL USO DE MANDOS O AJUSTES O LA REALIZACION DE PROCEDIMIENTOS DISTINTOS DE LOS INDICADOS EN LA PRESENTE IMPLICA EL RIESGO DE EXPOSICION A UNA RADIACION PELIGROSA.

COMO LOS RAYOS LASER UTILIZADOS EN ESTA UNIDAD PUEDEN RESULTAR PERJUDICIALES PARA SUS OJOS, NO INTENTE DESARMAR EL GABINETE.
SOLICITE EL SERVICIO UNICAMENTE A PERSONAL CUALIFICADO.

Aviso al instalador de sistemas CATV:

Este aviso tiene la finalidad de llamar la atención del instalador de sistemas CATV para que tenga en cuenta el Artículo 820-40 de NEC, que ofrece instrucciones para realizar una conexión a tierra apropiada y, en particular, especifica que el cable de puesta a tierra deberá conectarse al sistema de puesta a tierra del edificio tan cerca del punto de entrada del cable como sea posible.

Como socio de ENERGY STAR®, SHARP ha determinado que este producto cumple con las pautas de ENERGY STAR® para uso eficiente de energía. ENERGY STAR es una marca registrada estadounidense.

IMPORTANTES MEDIDAS DE SEGURIDAD Y PRECAUCIONES

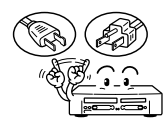
Precaucion

LEA LAS SIGUIENTES INSTRUCCIONES DE SEGURIDAD Y DE OPERACION antes de operar esta unidad y mantenga las instrucciones para uso luego. SIGA LAS INSTRUCCIONES Y TODAS LAS ADVERTENCIAS de esta unidad y de este manual.

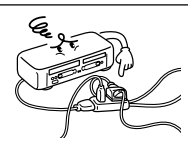
Instalacion

1. Opere únicamente con una fuente de energía indicada en esta unidad o en este manual. Si Ud. no está seguro sobre el suministro de energía, pregunte a su compañía local de luz y electricidad.
2. Como una medida de seguridad, esta unidad viene equipada con un enchufe polarizado de 2 alambres (una patilla de clavija más grande que la otra) o con un enchufe puesto a tierra de 3 alambres (un tercer conector para puesta a tierra). El enchufe polarizado de 2 alambres sólo entrará de una forma dentro de la toma de energía. El enchufe a tierra de 3 alambres se conecta solamente en un tomacorriente con tomacorriente.
   Si no entra el enchufe, pida al electricista que reemplace su salida obsoleta. No modifique el enchufe. Si lo hace, obstruiría la característica de seguridad.
3. Proteja y dirija los cordones de alimentación de tal forma que no los pisen ni sean oprimidos por algún mueble o artículo. Tenga especialmente cuidado en los enchufes, receptáculos convenientes o con los puntos de salida del cordón de la unidad. Los cordones de energía deshilachados o dañados son peligrosos. Haga que los reemplace un técnico de servicio calificado.
   Los tomacorrientes murales demasiado cargados o los cordones de las extensiones muy cargados pueden ocasionar incendio o peligro de electrochoque.
4. No cubra ni bloquee los orificios de ventilación del gabinete de la unidad. Si lo hace puede ocasionar daño en la unidad, video cassette o disco, u ocasionar incendio.
   No coloque esta unidad sobre una superficie suave que pudiera bloquear los orificios de ventilación de la parte inferior. Evite las instalaciones cerradas como libreros o estantes a menos que sea adecuada la ventilación.
5. Evite el exceso de humedad, los cambios repentinos de temperatura o temperaturas extremosas. Se puede formar humedad en el interior de esta unidad, video cassette o disco.
6. Para evitar un daño o lesión costosa coloque esta unidad en forma plana sobre una superficie sólida y estable, libre de vibraciones; no coloque nada pesado sobre la parte superior de ésta. Utilice únicamente un carrito, soporte, o mesita, recomendado por el fabricante. Siga todas las instrucciones con respecto a su uso.
7. La combinación del aparato con un carrito se debe mover con cuidado. Los paros súbitos, la fuerza excesiva y las superficies desniveladas pueden ocasionar que se voltee la combinación del aparato con el carrito.

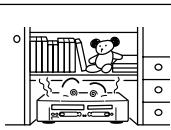
2



3



4



6

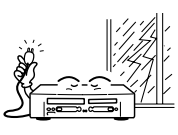
7

Operacion/Limpieza

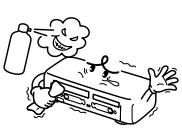
1. Mantenga esta unidad alejada de aparatos eléctricos y magnéticos que puedan impedir su funcionamiento.
2. Mantenga esta unidad alejada de lugares húmedos, como tinas, lavabos, fregaderos, tubería de lavadoras y albercas.
3. Utilice únicamente los accesorios recomendados por el fabricante para evitar incendio, electrochoque u otros peligros.
4. Si esta unidad se ha expuesto a la lluvia, humedad o fuerte impacto, desenchúfela y haga que la inspeccione un técnico de servicio calificado antes de reanudar el uso.
5. Para una mayor protección de esta unidad durante una tormenta o cuando la deje sin usar durante un período prolongado, desenchúfelo del tomacorriente mural y desconecte los cables. Esto evitará que el producto se dañe debido a sobretensiones transitorias o por descargas atmosféricas.
6. Desenchufe esta antes de limpiarla. Utilice un trapo húmedo para limpiar. No utilice líquidos ni aerosoles de limpieza que pudieran entrar a la unidad y ocasionar daño, incendio o electrochoque. Estas substancias podrían dañar el acabado de esta unidad.

1

5

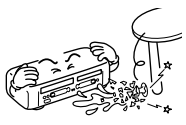


6



7. Nunca abra ni quite las cubiertas ni haga ajustes no descritos en este manual. Si trata de hacerlo, lo puede exponer a electrochoques peligrosos o a otros peligros. Podría ocasionar también un serio daño a esta unidad.

8

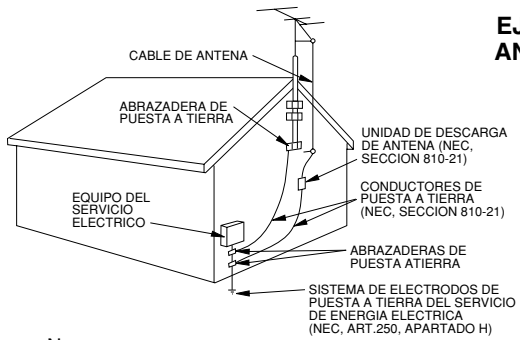


8. Mantenga alejados los líquidos y objetos extraños de esta unidad. Nunca opere esta unidad si le ha entrado líquido o algún objeto extraño. Cortocircuitos eléctricos pueden ocurrir y posiblemente ocasionar incendio o electrochoque. Desconecte esta unidad inmediatamente y haga que la inspeccione un técnico especializado.

PUESTA A TIERRA DE LA ANTENA EXTERIOR Y LINEAS DE ALIMENTACION –

1. Si la antena exterior o sistema de cable está conectado a esta unidad, asegúrese de que tengan conexión a tierra para proporcionar una adecuada protección contra excesos de corriente o cargas estáticas integradas. La artículo 810 del Código Nacional Eléctrico, ANSI/NFPA No. 70 proporciona información acerca de la adecuada conexión a tierra de la antena y de sus estructuras de soporte, así como de la conexión a tierra del cableado de la unidad de descarga de la antena, el tamaño de los conductores a tierra, la ubicación de la unidad de descarga de la antena, la conexión de los electrodos de tierra y los requerimientos para el electrodo de tierra. Vea la figura y diagrama que se muestra a continuación.

EJEMPLO DE CONEXION DE ANTENA SEGUN EL CODIGO ELECTRICO NACIONAL


CABLE DE ANTENA
ABRAZADERA DE PUESTA A TIERRA
UNIDAD DE DESCARGA DE ANTENA (NEC, SECCION 810-21)
CONDUCTORES DE PUESTA A TIERRA (NEC, SECCION 810-21)
EQUIPO DEL SERVICIO ELECTRICO
ABRAZADERAS DE PUESTA ATIERRA
SISTEMA DE ELECTRODOS DE PUESTA A TIERRA DEL SERVICIO DE ENERGIA ELECTRICA (NEC, ART.250, APARTADO H)

NEC—CODIGO ELECTRICO NACIONAL

2. No se debe poner un sistema exterior de antena cerca de líneas de alta tensión ni otros circuitos de energía o donde pueda entrar en contacto con las líneas de alimentación o circuitos. Cuando instale un sistema exterior de antena, tenga extrema precaución para no entrar en contacto con las líneas de alimentación o circuitos, ya que el contacto con éstas podría ser fatal.

Servicio

1. No intente dar servicio Ud. mismo a esta unidad. Desconéctela y póngase en contacto con un técnico especializado. (Véase **CONSUMER LIMITED WARRANTY** al final de este manual)
2. Asegúrese de que el técnico de servicio utilice las partes autorizadas de reemplazo o sus equivalentes. Las partes no autorizadas podrían ocasionar electrochoque, incendio u otros peligros.
3. Después de cualquier servicio o reparación, asegúrese de que el técnico de servicio lleve a cabo las verificaciones de seguridad para certificar que esta unidad esté en buen estado de operación.

Protección contra copias

Esta unidad soporta la protección contra copias Macrovision.
En los discos DVD con código de protección contra copias, si intenta copiar los contenidos del disco DVD utilizando una videograbadora (VCR), el código de protección contra copias evitará la reproducción normal de la videocinta copiada.

"Apparatus Claims of U.S. Patents" Nos. 4.631.603, 4.577.216, 4.819.098 y 4.907.093 licenciadas para utilizaciones de visualización limitada solamente.

Este producto incorpora tecnología de protección de copyright que está protegida por reclamaciones de ciertas patentes de los EE.UU. y otros derechos de propiedad intelectual de propiedad de Macrovision Corporation y otros propietarios. El uso de esta tecnología de protección de copyright debe ser autorizado por Macrovision Corporation, y es solamente para uso doméstico u otros usos limitados a menos que se autorice lo contrarío por Macrovision Corporation. Se prohíbe la ingeniería inversa y el desmontaje.

Métodos recomendados para la alta calidad de imagen

Esta unidad es un instrumento de precisión construído utilizando tecnología altamente avanzada.
- Si los componentes de la cabeza o accionador de cinta estan sucios o gastados, la imagen en la cinta se distorsionará.
- El disco no podrá ser reproducido si el componente de la unidad del disco está gastado o si el lente interno esta sucio.

Para obtener una alta calidad de imagen, esta unidad debe ser chequeada (limpieza y reemplazo de algunas partes) cada 1,000 horas. Este período varia de acuerdo con el ambiente en el cual la unidad esta usada. Refierase a su distribuidor Sharp autorizado para detalles.

Precaución sobre la formación de humedad

Hay casos en los cuales se puede formar humedad dentro de la unidad.
Operando una unidad en la cual se formado humedad, puede dañar or enrollar la cinta o señales del disco no podrán ser leídas.
Remueva el cassette o disco y deje la unidad encedida (power ON) por 2 horas para que se caliente y quite la humedad. La unidad operará de nuevo normalmente.
Se puede formar humedad en el tambor, las cabezas, el lente, la cinta, o el disco bajo las siguientes condiciones:
- Inmediatamente después de que se ha encedido un calefactor.
- En un cuarto muy húmedo y caluroso.
- Cuando la unidad se ha movido repentinamente de un ambiente frio a un ambiente calido.
  Opere esta unidad en un lugar donde la temperatura es entre 5°C a 35°C (41°F a 95°F). Humedad se puede formar dentro de la unidad en lugares fríos.

Otros

1. Es intención de Sharp que este producto sea utilizado de total conformidad con las leyes de copyright de los Estados Unidos y que se obtenga el consentimiento previo de los titulares del copyright siempre que sea necesario.
2. Normalmente, no será necesario limpiar las cabezas de esta unidad. Sin embargo, las cabezas tal vez se atasquen cuando se utilice una cinta vieja o estropeada. Si la imagen de reproducción aparece borrosa, las cabezas quizá tengan que limpiarse. La limpieza de las cabezas deberá realizarla un técnico especializado. Póngase en contacto con el centro de servicio autorizado más cercano. No utilice una cinta de limpieza a menos que ésta sea nueva y de alta calidad. El uso excesivo de cintas de limpieza también podría estropear las cabezas.

AVISO—Mantenga alejada su VCR de aparatos eléctricos y magnéticos que puedan impedir su funcionamiento. Asegúrese de colocar su VCR lejos de su TV o monitor de vídeo por lo menos 20 cms.

Guía de operación rápida en español

Conexión de la TV

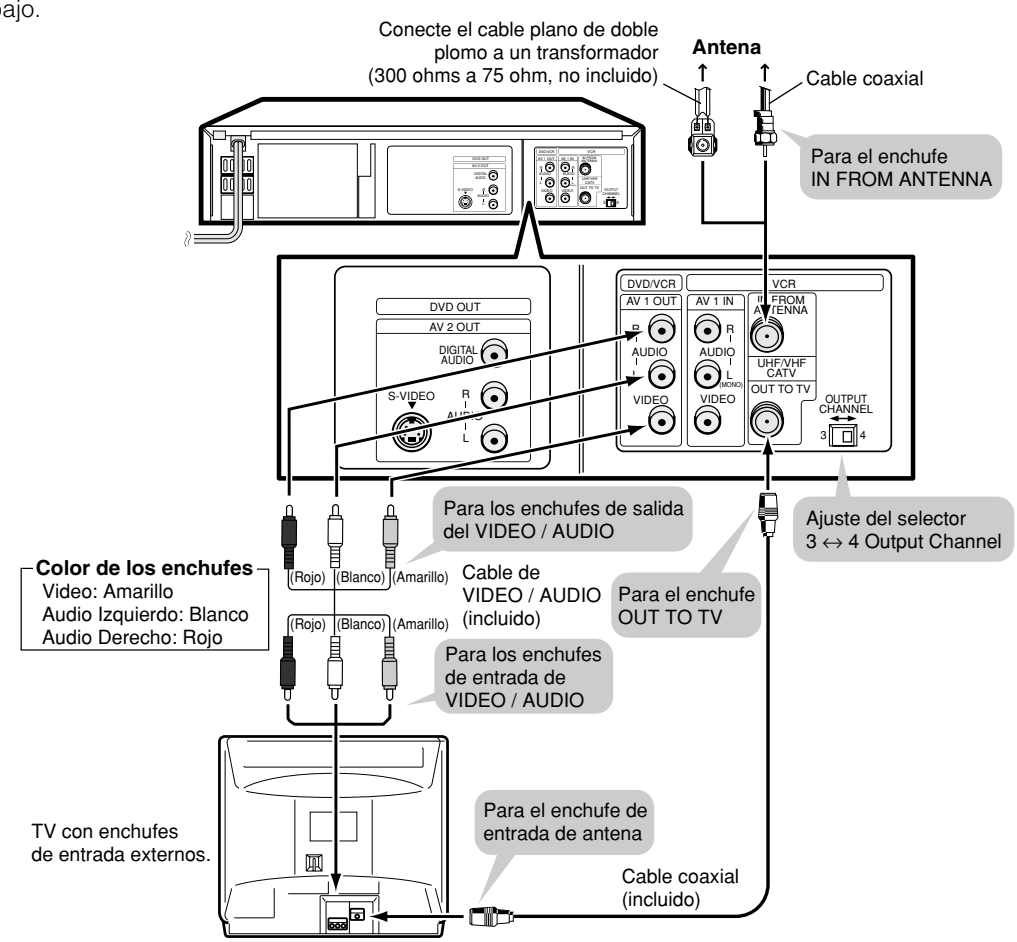
Precaución:

- Asegurese de apagar la unidad y el equipo que va a ser conectado antes de conectar.
- Lea el manual de operaciones para información sobre el equipo que se va a conectar.
- Asegurese de que los colores de los enchufes sean correctos al conectar los cables.
- Asegurese de mantener los cables de conexión de la unidad separados del cable de la antena al conectar la unidad. Esto podría causar interferencia electrica al ver programas de television.

El metodo de conexión varia depediendo en su clase de TV.

1 Desconecte la antena de TV.

2 Conecte la antena, la unidad, y el TV con el cable de Audio/Video y cable coaxial (incluido) como se muestra abajo.



Ajuste del Selector 3 ↔ 4 OUTPUT CHANNEL

El selector 3 ↔ 4 OUTPUT CHANNEL cambia la salida de la unidad a señales de emisión de TV estándar. Su televisor y unidad deben estar ajustados al mismo canal (por ejemplo, el televisor en el canal 3 y el selector OUTPUT CHANNEL de la videograbadora también en 3).

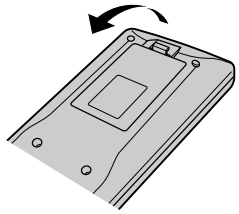
Su unidad ha sido ajustada en fábrica al canal 3, así que su televisor tendrá que sintonizarse también al canal 3. Si el canal 3 es un canal de emisión activo en su zona, ponga el selector 3 ↔ 4 OUTPUT CHANNEL de la unidad en 4 y sintonice el televisor al canal 4.

Después de las conexiones

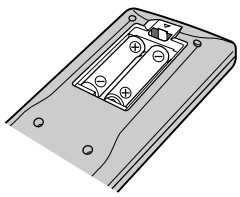
Conecte el cable de alimentación del televisor, y procida a **EZ Set Up** (vea la página 111).

Preparación de la unidad de control remoto

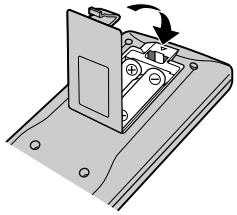
1 Abra la tapa del compartimiento de pilas en la dirección de las flechas.



2 Cargue las dos pilas (R6 UM/SUM-3 o AA) suministradas con la unidad de control remoto de manera que los polos ⊕ y ⊖ de las pilas queden colocados tal como se indica.



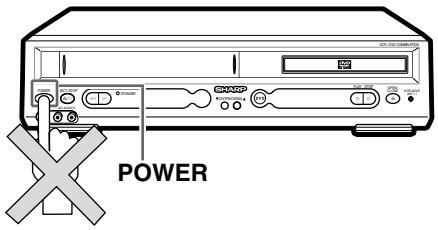
3 Cierre la tapa del compartimiento de pilas en la dirección de la flecha.



EZ Set Up (Con Puesta en Hora Automática del Reloj)

! IMPORTANTE (Precaución durante EZ Set Up):

- No pulse el botón **POWER** de la unidad ni del control remoto.
- No introduzca un videocasete en la unidad.



La función de EZ Set Up ajusta automáticamente los canales del sintonizador cuando el cable de la antena está conectado al panel trasero de la unidad y la clavija del cable de alimentación está conectada a una toma de CA.

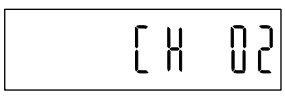
1 Asegúrese de que el cable de la antena esté conectado. Para conocer la configuración de la conexión, consulte **Conexión de el TV**.

2 Conecte la clavija del cable de alimentación de la unidad a una toma de CA.

3 Los canales del sintonizador se ajustarán automáticamente.

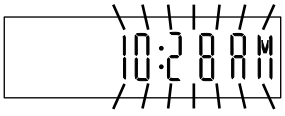
- Esta la unidad puede controlar y utilizar señales horarias (señales EDS), emitidas por algunos canales de televisión, para poner automáticamente en hora el reloj de la videograbadora. Esta la unidad busca automáticamente las señales EDS, pero si tiene prisa por usar la grabación con temporizador o conoce la portadora del canal de la señal EDS de su zona, siga el procedimiento indicado en **Puesta en Hora Manual del Reloj** la página 114.

Durante el ajuste automático de canales



Durante la puesta en hora automático del reloj

EZ Set Up completo

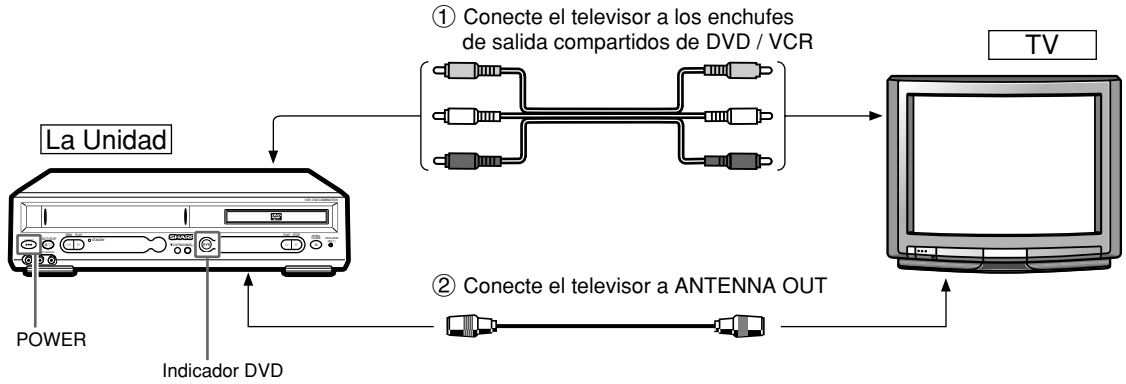


NOTA

- Si se suministra alimentación a la unidad antes de conectar el cable, EZ Set Up no podrá preajustar canales en la memoria. Si ocurre esto, desenchufe la unidad de la toma de corriente y espere unos pocos minutos. Compruebe la conexion del cable/antena y suministre alimentacion a la unidad. EZ Set Up empezará de nuevo automáticamente.
- Si se conecta la alimentación durante EZ Set Up, el ajuste automático de los canales se interrumpirá y los canales del sintonizador no podrán ser preajustados.
- La Puesta en Hora Automática del Reloj puede tardar varios minutos.
- Si la Puesta en Hora Automática no se hubiese producido al cabo de 30 minutos, es posible que no haya canales con señales EDS. En este caso, ponga el reloj en hora manualmente. (Consulte Puesta en Hora Manual del Reloj la página 114.)
- Si la señal de antena es débil, es probable que la Puesta en Hora Automática no funcione.
- Durante el ajuste inicial de los canales, éstos se ajustarán en el canal AIR. Para ver un canal de TV por cable, seleccione “CATV” en la pantalla PREAJ. CANAL.

Preparaciones antes de usar la unidad

Las siguientes preparaciones son necesarias para poder ver el VCR o DVD.
Asegúrese de que la unidad y el TV esten conectados como se muestra abajo.
Las siguentes páginas explican como operar esta unidad.


① Conecte el televisor a los enchufes de salida compartidos de DVD / VCR
TV
La Unidad
② Conecte el televisor a ANTENNA OUT
POWER
Indicador DVD

Viendo el VCR

TV

Encienda el TV y cambie el canal del TV para “VIDEO” externo o canal “AV” (or canal VCR 3 o 4) que esta conectado a los enchufes de salida compartidos de DVD / VCR.

Esta Unidad

1 Pulse **POWER**.

2 Mueva el **VCR/DVD CHANGE switch** en el control remoto para **VCR**.

Esto completa los ajustes
Ya esta listo para ver el VCR.

Viendo DVDs

TV

Encienda el TV y cambie el canal del TV para “VIDEO” externo o canal “AV” que esta conectando a los enchufes de salida DVD.

Esta Unidad

1 Pulse **POWER**.

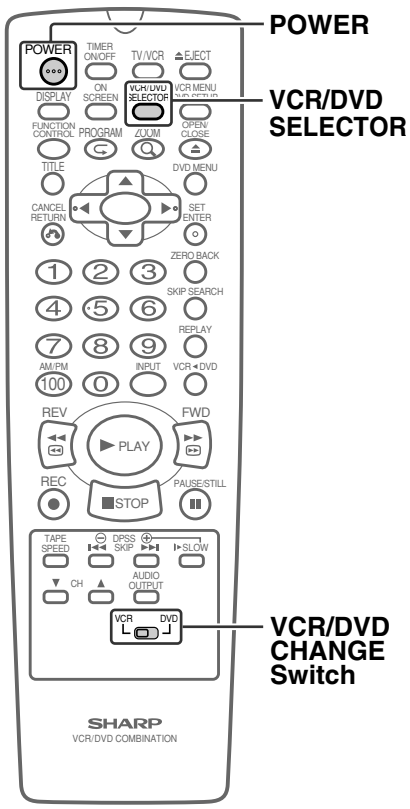
2 Mueva el **VCR/DVD CHANGE switch** en el control remoto para **DVD**.

3 Pulse el **VCR/DVD SELECTOR** para entrar al modo **DVD**.
- El indicador DVD en parte frontal de la unidad se encedera.

Esto completa los ajustes
Ya esta listo para ver DVDs.

NOTA

- No se pueden ver DVDs si solamente esta conectado el cable de la antena como en ②.



■ Usando el VCR

Escogiendo el Idioma para el OSD.

Preparacion

- Vea **Viendo el VCR** en la página 112.

1 Pulse **VCR MENU** para visualizar la pantalla del menu.

> **Precaución:**
>
> Cuando use la unidad por primera vez o si hay una falla de alimentación por más the 60 segundos, pulse **VCR MENU**. La pantalla “IDIOMA” que se ve en el paso **3** aparecerá. Asegurese de poner el idioma que será usado por el OSD.

2 Seleccione el “IDIOMA” con ▲ / ▼ y pulse **SET**.

```
          MENU

TEMP
PREPARAR
PREAJ. CANAL
RELOJ
IDIOMA

SELEC. :▲ ▼
ENTRAR :SET  SALIR :MENU
```

3 Seleccione el idioma que quiera usar con ▲ / ▼.
(Ej.) ESPAÑOL

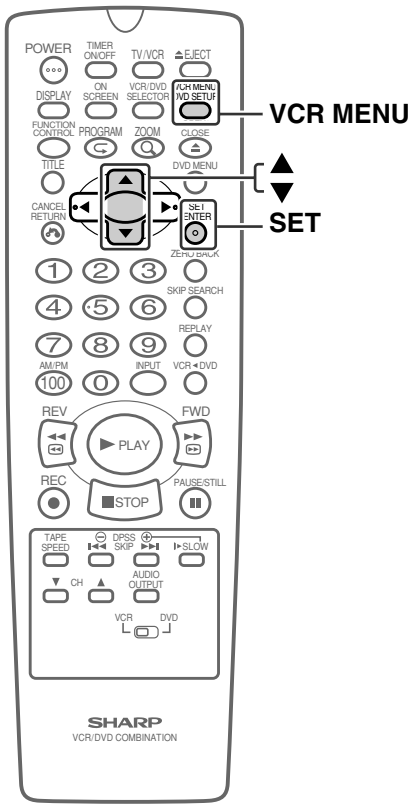
```
          IDIOMA

ENGLISH
ESPAÑOL
FRANÇAIS



SELEC. :▲ ▼
ENTRAR :SET  SALIR :MENU
```

4 Pulse **SET** para introducir su selección.

- La pantalla pasará a ser la normal.

NOTA

- Si pulsa **VCR MENU** para salir de la pantalla IDIOMA en el paso 3, los datos no se almacenarán.



Puesta en Hora Manual del Reloj

Preparacion

- Vea **Viendo el VCR** en la página 112.

1 Pulse **VCR MENU**. Seleccione “RELOJ” con ▲ / ▼ y luego pulse **SET**.

```
MENU

TEMP
PREPARAR
PREAJ. CANAL
RELOJ
IDIOMA

SELEC. :▲ ▼
ENTRAR :SET   SALIR :MENU
```

2 Seleccione “MANUAL” con ▲ / ▼ y luego pulse **SET**.

```
RELOJ

AUTO
MANUAL


SELEC. :▲ ▼
ENTRAR :SET   SALIR :MENU
```

3 Seleccione “HORA” con ◀ / ▶ y ponga la hora con ▲ / ▼.
(Ej.) 10:28 AM

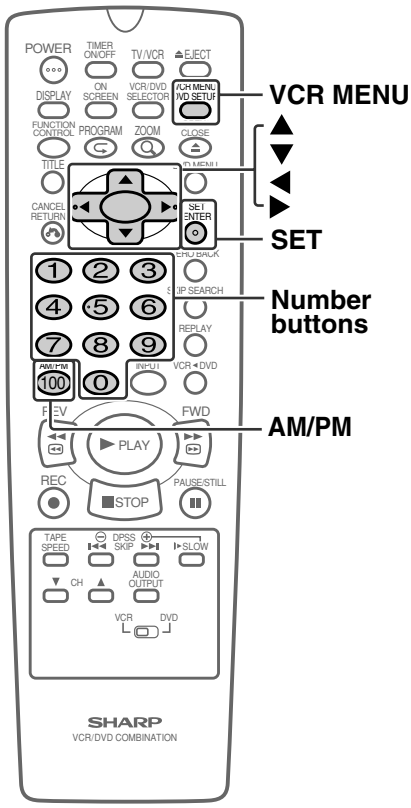
- Para ajustar la hora y la fecha se pueden utilizar los botones numerados en lugar de ▲ / ▼. Pulse **AM/PM** para seleccionar AM o PM durante el ajuste de la hora.

4 Seleccione y ponga “FECHA”, “AÑO” y “DST” en orden, de igual forma que en el paso **3**.
(Ej.) 4 de julio de 2000, DST: ENC

```
RELOJ

HORA      FECHA  AÑO DST
10:28AM   7/04MIE 01 ENC


SELEC. :◀ ▶   CAMBIO:▲ ▼
ENTRAR :SET   SALIR :MENU
```

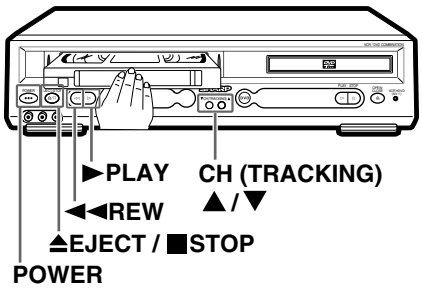
5 Si los datos son correctos, pulse **SET** para introducirlos.

- La pantalla pasará a ser la normal.



Introducción de un Videocasete

Introduzca con cuidado el videocasete en su compartimiento. La unidad se encenderá automáticamente y "[OO]" aparecerá en el visualizador multifuncional. Si el videocasete se introduce mal, el sistema de carga no funcionará. No meta a la fuerza el videocasete en la unidad. Para extraer el videocasete, pulse el botón **EJECT** durante el modo de parada.



Reproducción

Preparacion

- Vea **Viendo el VCR** en página 112.

1. Pulse **POWER**.
2. Inserte un videocasete suavemente.
3. Pulse ▶**PLAY**.
4. Pulse ■**STOP** para detener la reproducción.

Avance Rápido y Rebobinado

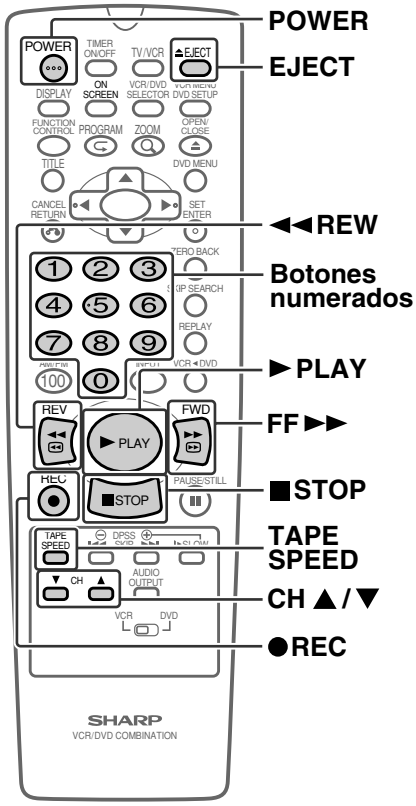
1. Cuando la unidad esté en el modo de parada, pulse ▶▶**FF** o ◀◀**REW** para avanzar rápidamente o rebobinar la videocinta. (La imagen no se podrá ver en este modo.)
2. Pulse ■**STOP** para detener el avance rápido o el rebobinado.

Grabando un programa de TV

Preparacion

- Vea **Viendo el VCR** en página 112.

1. Introduzca el videocasete asegurándose de que el orificio de la lengüeta de protección contra el borrado esté tapado.
2. Pulse **TAPE SPEED** para poner la velocidad de grabación (SP o EP). SP o EP aparecerá en el visualizador multifuncional.
3. Seleccione el canal deseado con **CH** ▲ / ▼ o los botones numerados del control remoto.
4. Pulse ●**REC**. (Si la lengüeta de protección contra el borrado ha sido quitada, el videocasete saldrá expulsado.)
5. Para detener la grabación, pulse ■**STOP**.



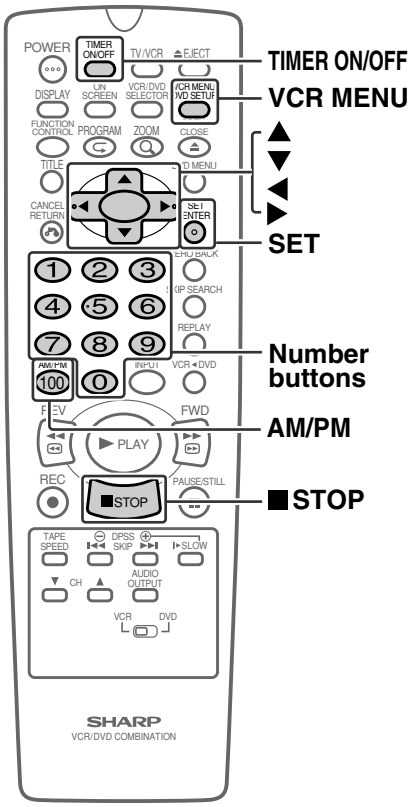
Para Ver otro Programa de TV Durante la Grabación

Mientras se graba, pulse **TV/VCR** para seleccionar "TV" (el indicador "VCR" desaparecerá), y luego seleccione el programa que desee ver utilizando el sintonizador del televisor.
Al finalizar la cinta, la unidad parará la grabación, rebobinará la cinta y desconectará la alimentación, todo automáticamente.

Grabación con el Temporizador

Preparaciones

- Vea **Viendo el VCR** en la página 112.
- Cerciórese de que el reloj está mostrando la hora correcta.
- Introduzca un videocasete estando tapado el orificio que ha quedado al quitar la lengüeta de protección contra el borrado. La alimentación se conectará automáticamente.



1 Pulse **VCR MENU**.

```
          MENU

TEMP
PREPARAR
PREAJ. CANAL
RELOJ
IDIOMA

SELEC. :▲ ▼
ENTRAR :SET   SALIR :MENU
```

2 Seleccione “TEMP” con ▲ / ▼.

3 Pulse **SET**.

```
                          1/2
FECHA   CA INICIO PARADA
 -/--  ---   --:--  --:----
 -/--  ---   --:--  --:----
```

4 Seleccione el mes/día deseado (FECHA) con ▲ / ▼ y luego pulse ▶. El cursor pasará a la columna siguiente.

```
                          1/2
FECHA   CA INICIO PARADA
 8/10  ---   --:--  --:--SP
 -/--  ---   --:--  --:----
```

5 Introduzca el canal deseado, la hora para comenzar la grabación, la hora para detener la grabación y la velocidad del casete como en el paso **4**.

```
                          1/2
FECHA   CA INICIO PARADA
 8/10   07    9:05P10:35SP
 -/--  ---   --:--  --:----
```

6 Pulse **SET**.

- Para programar más ajustes del temporizador, pulse **SET** y repita los pasos **2**–**6**.

```
                          1/2
FECHA   CA INICIO PARADA
 8/10   07    9:05P10:35SP
 -/--  ---   --:--  --:----
```

7 Pulse **VCR MENU** para terminar los ajustes.
La visualización mostrada a la izquierda aparecerá en la pantalla durante 5 segundos, tras lo cual volverá a aparecer la pantalla normal.

```
BOTON TIMER ENC./APAG.
```

8 Pulse **TIMER ON/OFF** para entrar en el modo de espera del temporizador. Asegúrese de que “TIMER” esté encendido en el visualizador multifuncional.

```
TIMER
```

■ Usando el DVD

Realice la configuración inicial

Preparacione

• Vea **Viendo el DVD** en página 112.

Cuando utilice el reproductor de la unidad por primera vez, deberá ajustar el idioma a usar para la OSD (presentación de pantalla al encender).

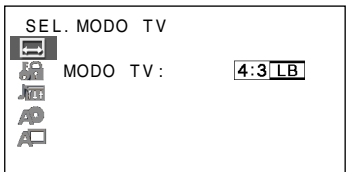
1 Presione **DVD SETUP**. Aparece la pantalla " OSD LANGUAGE SETUP".

2 Utilice ▲ o ▼ para seleccionar el idioma que desea usar.

3 Presione **ENTER** para confirmar el ajuste.

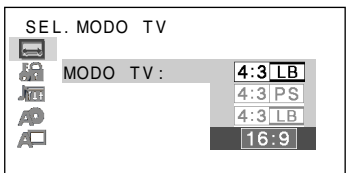
Si el televisor conectado tiene una pantalla con una relación de aspecto de 4:3 (el televisor no es de pantalla ancha), no hay necesidad de cambiar el ajuste inicial y puede proceder con la página 119.
Sin embargo, cuando se conecta un televisor con pantalla ancha al reproductor de video DVD, proceda al paso 4 siguiente y cambie el ajuste "MODO TV" en la pantalla "SEL. MODO TV" del reproductor de video DVD a 16:9.

4 Utilice ▲ o ▼ para seleccionar " SEL. MODO TV".



5 Presione **ENTER** para visualizar los ítemes que puede seleccionar.

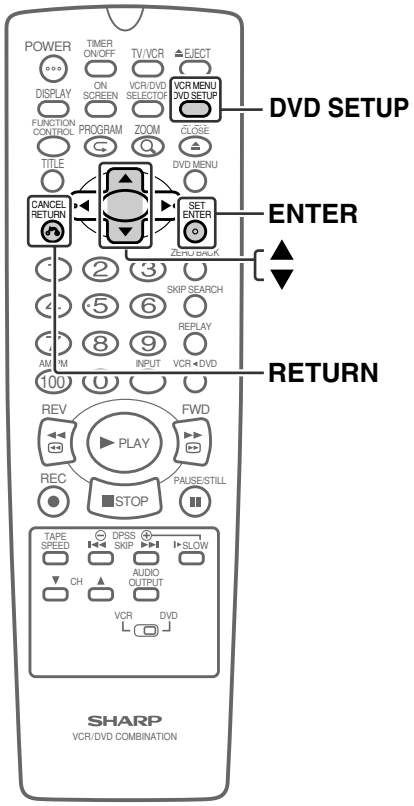
6 Utilice ▲ o ▼ para seleccionar 16:9.



7 Presione **ENTER** para confirmar el ajuste y luego **RETURN** para salir de la pantalla de ajustes y retornar a la pantalla de arranque.

NOTA

- La pantalla de ajustes no aparecerá mientras se reproduce un disco.
- Presione **RETURN** para retornar a la pantalla previa.



Compruebe el disco

Antes de colocar un disco, revise para asegurarse que es un tipo de disco soportado por la unidad.

Tipos de discos soportados

Tipo de disco	Contenido del disco	Tamaño del disco
Disco de video DVD Números de región: Discos DVD del sistema NTSC que conforman los números de la región que se anotan arriba	Audio y video (películas)	12cm (5") / 8cm (3")
CD de audio	Audio	12cm (5") / 8cm (3") (único)
CD-R/CD-RW	Audio	12cm (5") / 8cm (3")

Otros CDs
1) Solamente el sonido (sin imagenes) se puede reproducir en discos CD-Gs y CD-EXTRA.
2) No se pueden usar discos Video CD, photo CD, DVD-ROM, DVD-R, DVD-RW, DVD-Audio, SACD y CD-ROM.
3) No se pueden usar discos de formas diferentes (forma de corazón o de hexágono). El uso de esa clase de discos puede causar errores.
   - Esta unidad rechazará discos incompatibles. Por esa manera, la clase de disco debe ser chequeada.

Carga y reproducción del disco

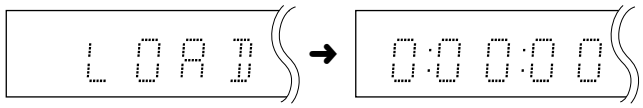
Después de haber comprobado que el disco es reproducible, cárguelo en el reproductor de la unidad y dé comienzo a la reproducción.

1 Pulse **OPEN/CLOSE** (⏏) para abrir la bandeja de discos.
- Hay un botón en el reproductor de la unidad y en el control remoto.
  Los dos botones tienen el mismo efecto cuando son pulsados.
- La bandeja de discos se desliza hacia afuera.

2 Coloque el disco en la bandeja de discos.
- Coloque el disco de forma tal que la etiqueta impresa quede orientada hacia arriba.

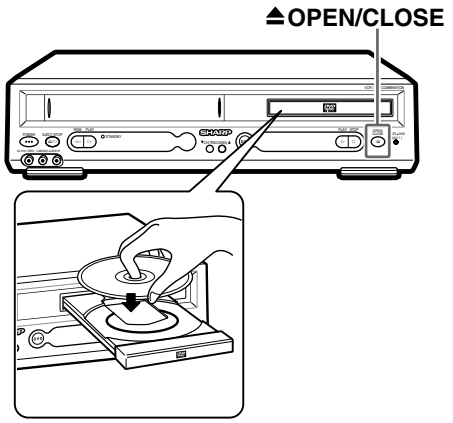
3 Pulse **OPEN/CLOSE** (⏏) para cerrar la bandeja de discos.
- Tenga cuidado de no aprisionarse los dedos al cerrar la bandeja de discos.

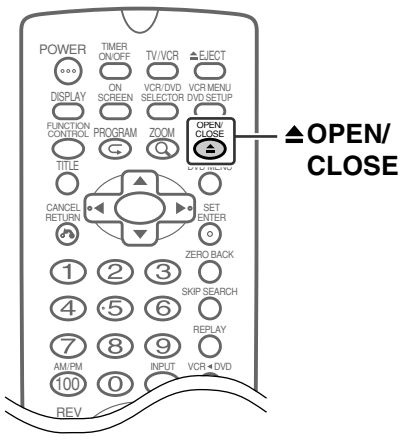
Panel delantero del DVD



Pantalla de TV

CARGANDO. . .



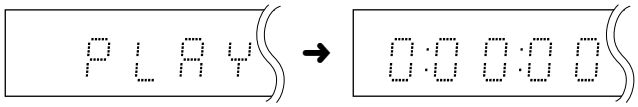


⏏OPEN/ CLOSE

NOTA
- Si se carga el disco al revés o está dañado, en la pantalla del panel frontal del reproductor aparecerá "– – – – –" y la bandeja de discos será deslizada hacia afuera.
- Si intenta reproducir un disco con el código de región equivocado en la pantalla del televisor aparecerá "⃠ DISCO FUERA DE ZONA" y la bandeja de discos se deslizará hacia afuera.

4 Pulse ►**PLAY**.
- Hay un botón en el reproductor de la unidad y uno en el control remoto. Los dos botones tienen el mismo efecto al ser pulsados.
- Algunos discos dan comienzo a la reproducción automáticamente al cerrarse la bandeja de discos (discos de comienzo automático).

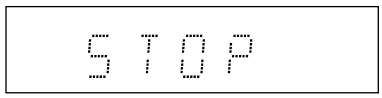
Panel delantero del DVD (Cuando se cargan discos DVD)



Pantalla de TV

5 Cuando desee detener la reproducción, pulse ■**STOP**.
- Hay un botón en el reproductor de la unidad y uno en el control remoto. Los dos botones tienen el mismo efecto al ser pulsados.

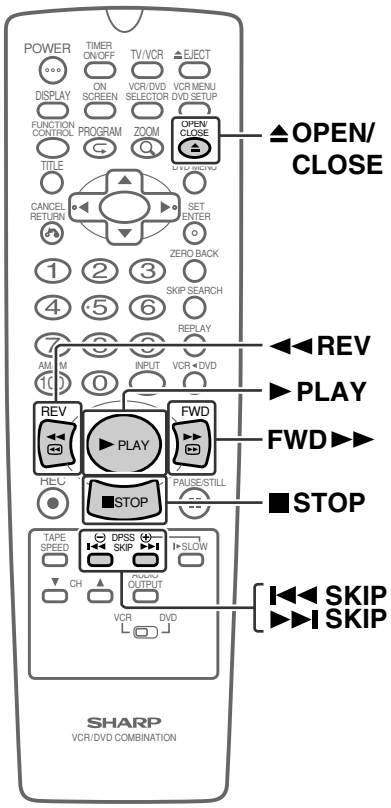
Panel delantero del DVD

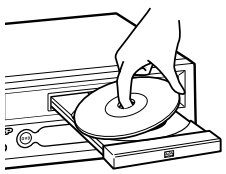


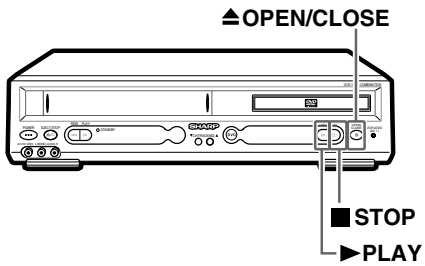
Pantalla de TV

6 Presione **OPEN/CLOSE**(▲) para abrir la bandeja de discos.
- La bandeja de discos se desliza hacia afuera. Luego retire el disco.

7 Presione **OPEN/CLOSE**(▲) para cerrar la bandeja de discos.







Operaciones principales durante la reproducción de discos

Para ir al principio del capítulo (pista)

1 Mientras se está reproduciendo el disco, pulse **SKIP►►I** o **I◄◄SKIP**.
- Hay un botón en el control remoto.
- Si pulsa **SKIP►►I**, la reproducción salta hacia adelante al principio del capítulo (pista) siguiente.
- Si pulsa **I◄◄SKIP**, la reproducción salta hacia atrás al principio del capítulo (pista) actual.

Avance rápido/retroceso rápido

2 Mientras se está reproduciendo un disco, pulse **FWD►►** o **◄◄REV**.
- Hay un botón en el control remoto.
- Si sostiene presionado **FWD►►** durante dos o más segundos, la imagen comienza a avanzar rápidamente.
- Si sostiene presionado**◄◄REV** durante dos o más segundos, la imagen comienza a retroceder rápidamente.

NOTA►
- En algunos discos, las funciones de salto están inhabilitadas.
- El número de capítulo no se visualiza en los discos en los que no se graban capítulos.
- En algunos discos, las funciones de escaneo rápido están inhabilitadas.

CONSUMER LIMITED WARRANTY

(Valid for warranty service in the U.S. only)

CONSUMER LIMITED WARRANTY

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Additional Item(s) Excluded from Warranty Coverage (if any):	Non-rechargeable batteries.
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